

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: January 21, 2006, 21:31:01 ; Search time 109 Seconds

(without alignments)
3131.118 Million cell updates/sec

Title: US-10-721-793-115

Perfect score: 192

Sequence: 1 aaagcgggtatctcgtgga.....ccctttctaataaaagatgc 192

Scoring table: IDENTITY NUC
Gapop 10.0 , Gapext 1.0

Searched: 1303057 seqs, 888780828 residues

Total number of hits satisfying chosen parameters: 2606114

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents NA.*

- 1: /cgn2_6/prodata/1/ina/1 COMB.seq.*
- 2: /cgn2_6/prodata/1/ina/5 COMB.seq.*
- 3: /cgn2_6/prodata/1/ina/6A COMB.seq.*
- 4: /cgn2_6/prodata/1/ina/6B COMB.seq.*
- 5: /cgn2_6/prodata/1/ina/H COMB.seq.*
- 6: /cgn2_6/prodata/1/ina/PCTUS COMB.seq.*
- 7: /cgn2_6/prodata/1/ina/PP COMB.seq.*
- 8: /cgn2_6/prodata/1/ina/RE COMB.seq.*
- 9: /cgn2_6/prodata/1/ina/backfiles1.seq.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	121.4	63.2	301	3	US-09-053-021-3
2	121.4	63.2	345	3	US-09-053-021-8
3	35	18.2	243	3	US-09-599-632-11
4	35	18.2	1664976	3	US-08-916-421B-1
5	35	18.2	1664976	3	US-09-692-570-1
6	32.4	16.9	3990	3	US-09-830-230A-629
7	32.4	16.9	7766	3	US-09-125-619-3
8	32.4	16.9	7766	3	US-10-222-566-3
9	32.4	16.9	7766	3	US-10-143-024A-3
10	32.4	16.9	7766	3	US-10-222-162-3
11	32	16.7	601	3	US-09-949-016-17726
12	32	16.7	601	3	US-09-949-016-17727
13	32	16.7	601	3	US-09-949-016-46726
14	32	16.7	601	3	US-09-949-016-46727
15	32	16.7	2560	3	US-09-023-655-1285
16	32	16.7	2578	3	US-09-949-016-1355
17	32	16.7	2591	3	US-09-949-016-9
18	32	16.7	40742	3	US-09-949-016-11751
19	32	16.7	40747	3	US-09-949-016-13097
20	31.6	16.5	1059	3	US-09-419-788-26
21	31.4	16.4	8286	3	US-09-949-016-15170
22	31.4	16.4	16082	3	US-09-949-016-16220
23	31.4	16.4	1664976	3	US-08-916-421B-1
24	31.4	16.4	1664976	3	US-09-692-570-1

25	30.2	15.7	1100	3	US-09-710-279-1201	Sequence 1201, Ap
26	30.2	15.7	1215	3	US-09-134-001C-277	Sequence 277, App
27	30.2	15.7	3153	3	US-09-710-279-3441	Sequence 3441, Ap
c 28	30	15.6	1329	3	US-09-248-796A-2713	Sequence 2713, Ap
29	29.6	15.4	996	3	US-09-134-001C-2351	Sequence 2351, Ap
30	29.6	15.4	4103	3	US-09-710-279-3532	Sequence 3532, Ap
31	29.4	15.3	194	3	US-09-445-803-5	Sequence 5, Appli
c 32	29.2	15.2	3394	3	US-09-710-279-3629	Sequence 3629, Ap
33	28.8	15.0	1293	3	US-09-248-796A-2701	Sequence 2701, Ap
34	28.8	15.0	119211	3	US-09-596-002-40	Sequence 40, Appl
35	28.6	14.9	531	3	US-09-543-681A-2750	Sequence 2750, Ap
36	28.6	14.9	3760	3	US-09-976-594-213	Sequence 213, App
37	28.6	14.9	49744	3	US-09-927-091-4	Sequence 4, Appli
c 38	28.4	14.8	267482	3	US-09-949-002-659	Sequence 659, App
c 39	28.4	14.8	267505	3	US-09-949-002-783	Sequence 783, App
40	28.2	14.7	250	3	US-09-513-999C-19914	Sequence 19914, A
41	28	14.6	643	3	US-09-034-088A-27	Sequence 27, Appl
42	28	14.6	643	3	US-09-781-811-27	Sequence 27, Appl
43	27.8	14.5	363	3	US-09-134-000C-1309	Sequence 1309, Ap
44	27.8	14.5	1960	2	US-08-595-937A-1	Sequence 1, Appli
c 45	27.8	14.5	2443	2	US-08-447-185-3	Sequence 3, Appli

ALIGNMENTS

RESULT 1

US-09-053-021-3
; Sequence 3, Application US/09053021

; Patent No. 6270785

; GENERAL INFORMATION:

; APPLICANT: SELISKO, Barbara

; APPLICANT: GARCIA-RODRIGUEZ, Consuelo

; APPLICANT: ZAMUDIO-ZUNIGA, Fernando

; APPLICANT: BECERRIL-LUJAN, Baltazar

; APPLICANT: POSSANI-POSTAY, Lourival D.

; TITLE OF INVENTION: Primary Sequence and cDNA of

; Patent No. 6270785

; TITLE OF INVENTION: Insecticidally Effective Toxins from Scorpions of the

; NUMBER OF SEQUENCES: 9

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &

; ADDRESSEE: Dunner, L.L.P.

; STREET: 1300 I Street, N.W.

; CITY: Washington

; STATE: DC

; COUNTRY: USA

; ZIP: 20005

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Patent In Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/053,021

; FILING DATE:

; CLASSIFICATION:

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 60/017,007

; FILING DATE: 30-APR-1996

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/848,261

; FILING DATE: 29-APR-1997

; ATTORNEY/AGENT INFORMATION:

; NAME: Garrett, Arthur S.

; REGISTRATION NUMBER: 20,338

; REFERENCE/DOCKET NUMBER: 06899.0001-01000

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (202) 408-4000

; TELEFAX: (202) 408-4400

; INFORMATION FOR SEQ ID NO: 3:

; SEQUENCE CHARACTERISTICS:

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;
; LENGTH: 301 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
; ORIGINAL SOURCE:
; ORGANISM: Centruroides noxius Hoffman
; DEVELOPMENTAL STAGE: Adult
; IMMEDIATE SOURCE:
; LIBRARY: cDNA
; CLONE: CngtVIIII
; FEATURE:
; NAME/KEY: sig_peptide
; LOCATION: 1..39
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 1..243
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: 40..243
US-09-053-021-3

Query Match 63.2%; Score 121.4; DB 3; Length 301;
Best Local Similarity 80.0%; Pred. No. 4e-31;
Matches 156; Conservative 0; Mismatches 36; Indels 3; Gaps 1;

Qy 1 AAAGACGGTTATCTGGTGGACAAG---ACGGGCTGCAAAATACACTTGTGATATTGGGA 57
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Db 40 AAGGAAGGTTATCTGGTGAACAAGACACAGGCTGTTAAATACAACTGCTTGATATTGGGA 99
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Qy 58 GAAACAATACTGCAATAGGGAATGCACATGGAGACACCGAGGAGTAAATTACGGCTAT 117
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 100 GAAACAATACTGATATGGATGCAATGCAAGACGAGGAGTAAATTACGGCTAT 159
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Qy 118 TGCTACGGAATTGGGTGCTATTGGGAAGGATTGTCGATAGTACACCGACTTGGCCCTT 177
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 160 TGCTACAGCTTGCACTGCTGTCGAGGTTTGC CGAAGTTCGCCGAAAGTACACCGACTTATCCCAT 219
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Qy 178 TCTAATAAAGATGC 192
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 220 CCTGTAACAATGC 234
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RESULT 2
US-09-053-021-8
; Sequence 8, Application US/09053021
; Patent No. 6270785
; GENERAL INFORMATION:
; APPLICANT: SELISKO, Barbara
; APPLICANT: GARCIA-RODRIGUEZ, Consuelo
; APPLICANT: ZAMUDIO-ZUNIGA, Fernando
; APPLICANT: BECERRIL-LUJAN, Baltazar
; APPLICANT: POSSANI-POSTAY, Lourival D.
; TITLE OF INVENTION: Primary Sequence and cDNA of
; Patent No. 6270785
; TITLE OF INVENTION: Insecticidally Effective Toxins from Scorpions of the
; TITLE OF INVENTION: Genus Centruroides
; NUMBER OF SEQUENCES: 9
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
; ADDRESSEE: Dunner, L.L.P.
; STREET: 1300 I Street, N.W.
; CITY: Washington
; STATE: DC
; COUNTRY: USA
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/053,021
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; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/017,007
; FILING DATE: 30-APR-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/848,261
; FILING DATE: 29-APR-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Garrett, Arthur S.
; REGISTRATION NUMBER: 20,338
; REFERENCE/DOCKET NUMBER: 06899.0001-01000
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202)408-4000
; TELEFAX: (202)408-4400
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 345 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 1..243
; FEATURE:
; NAME/KEY: sig_peptide
; LOCATION: 1..39
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: 40..243
US-09-053-021-8

Query Match 63.2%; Score 121.4; DB 3; Length 345;
Best Local Similarity 80.0%; Pred. No. 4.2e-31;
Matches 156; Conservative 0; Mismatches 36; Indels 3; Gaps 1;

Qy 1 AAAGACGGTTATCTGGTGGACAAG---ACGGGCTGCAAAATACACTTGTGATATTGGGA 57
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   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Qy 58 GAAACAATACTGCAATAGGGAATGCACATGGAGACACCGAGGAGTAAATTACGGCTAT 117
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 100 GAAACAATACTGATATGGATGCAATGCAAGACGAGGAGTAAATTACGGCTAT 159
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Qy 118 TGCTACGGAATTGGGTGCTATTGGGAAGGATTGTCGATAGTACACCGACTTGGCCCTT 177
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 160 TGCTACAGCTTGCACTGCTGTCGAGGTTTGC CGAAGTTCGCCGAAAGTACACCGACTTATCCCAT 219
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Qy 178 TCTAATAAAGATGC 192
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 220 CCTGTAACAATGC 234
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

RESULT 3
US-09-599-632-11
; Sequence 11, Application US/09599632
; Patent No. 6768002
; GENERAL INFORMATION:
; APPLICANT: Heriman, Rafael
; APPLICANT: Wong, James F.
; APPLICANT: Lee, Jian-Ming
; TITLE OF INVENTION: SCORPION TOXINS
; FILE REFERENCE: BB1375 US NA
; CURRENT APPLICATION NUMBER: US/09/599,632
; CURRENT FILING DATE: 2000-06-22
; PRIOR APPLICATION NUMBER: 60/140,410
; PRIOR FILING DATE: 1999-06-22
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 11
; LENGTH: 243
; TYPE: DNA
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; ORGANISM: Hottentotta judaica
US-09-599-632-11

Query Match      18.2% Score 35; DB 3; Length 243;
Best Local Similarity 56.5%; Pred. No. 0.051;
Matches 65; Conservative 0; Mismatches 50; Indels 0; Gaps 0;

QY 77 GCGATGCAATGAGGAGCAGCAGGAGGTAATTCAGGCTATTGCTACGGAATTTGGTGCT 136
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Db 116 GTGATGGTATATGTAAGAGAAAGGAGGAGATTATGCTATTGTTATTTCCCTGCTGTT 175
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QY 137 ATTGCGAAGATGTTCCGATAGTACACCGATTTGGCCCCCTTTCTTAATAAAGATG 191
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Db 176 ATTGCGAAGATGAGAGATAATCAAACTTTGGATAGAAAACCTAATAATG 230
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RESULT 4
US-08-916-421B-1
; Sequence 1, Application US/08916421B
; Patent No. 6503729
; GENERAL INFORMATION:
; APPLICANT: Bult et al.
; TITLE OF INVENTION: Complete Genome Sequence of the Methanogenic Archaeon, Methanococcus
; TITLE OF INVENTION: jannaschii
; PATENT NO. 6503729
; FILE REFERENCE: P8275
; CURRENT APPLICATION NUMBER: US/08/916,421B
; CURRENT FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: US 60/024,428
; PRIOR FILING DATE: 1996-08-22
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 1664976
; TYPE: DNA
; ORGANISM: Methanococcus jannaschii
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; NAME/KEY: misc_feature
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; OTHER INFORMATION: n equals a, t, c, or g
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; LOCATION: (191995)..(191995)
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; OTHER INFORMATION: n equals a, t, c, or g
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; NAME/KEY: misc_feature
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; OTHER INFORMATION: n equals a, t, c, or g
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; NAME/KEY: misc_feature
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; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc_feature
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; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc_feature
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; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc_feature
; LOCATION: (622708)..(622708)
; OTHER INFORMATION: n equals a, t, c, or g
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; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc_feature
; LOCATION: (657203)..(657203)
; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc_feature
; LOCATION: (674435)..(674435)
; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc_feature
; LOCATION: (682442)..(682442)
; OTHER INFORMATION: n equals a, t, c, or g
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; LOCATION: (713652)..(713652)
; OTHER INFORMATION: n equals a, t, c, or g
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; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc_feature
; LOCATION: (779455)..(779455)
; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc_feature
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; OTHER INFORMATION: n equals a, t, c, or g
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; LOCATION: (871619)..(871619)
; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc feature
; LOCATION: (1084830)..(1084830)
; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc feature
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; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc feature
; LOCATION: (1119881)..(1119881)
; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc feature
; LOCATION: (1130881)..(1130881)
; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc feature
; LOCATION: (1310988)..(1310988)
; OTHER INFORMATION: n equals a, t, c, or g
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; LOCATION: (1313224)..(1313224)
; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc feature
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; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc feature
; LOCATION: (1569020)..(1569020)
; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc feature
; LOCATION: (1602912)..(1602912)
; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc feature
; LOCATION: (1603734)..(1603734)
; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc feature
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; OTHER INFORMATION: n equals a, t, c, or g
; NAME/KEY: misc feature
; LOCATION: (1664854)..(1664855)
; OTHER INFORMATION: n equals a, t, c, or g
; US-08-916-421B-1

Query Match 18.2%; Score 35; DB 3; Length 1664976;
Best Local Similarity 56.5%; Pred. No. 1.7;
Matches 65; Conservative 0; Mismatches 50; Indels 0; Gaps 0;

QY 3 AGACGGTTATCTGGTGGCAAGCGGCTGCAATACACTTGTGGATATTGGGAGAAA 62
DB 210409 ATACAGTTGTGGATTACAGCTTACCTGCAAGTTTATAGCTGGATATTGTGGAGA 210468

QY 63 CAATATCTGCAATAGGGAATGCATGGAAGCCGAGGAGGTAAATTACGGCTAT 117
DB 210469 TAAGCCAGAAATGACATTTTATATGGAAGTGTCTTAGCTATAATTTCAGGTTT 210523

RESULT 5
US-09-692-570-1
; Sequence 1, Application US/09692570
; Patent No. 6797466
; GENERAL INFORMATION:
; APPLICANT: Bult et al.
; TITLE OF INVENTION: Complete Genome Sequence of the Methanogenic Archaeon, Methanoco-
; Patent No. 6797466
; TITLE OF INVENTION: jannaschii
; FILE REFERENCE: PB275C1
; CURRENT APPLICATION NUMBER: US/09/692,570

; CURRENT FILING DATE: 2003-01-14
; PRIOR APPLICATION NUMBER: US 60/024,428
; PRIOR FILING DATE: 1996-08-22
; PRIOR APPLICATION NUMBER: US 08/916,421
; PRIOR FILING DATE: 1997-08-22
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 1664976
; TYPE: DNA
; ORGANISM: Methanococcus jannaschii
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (28222)..(28222)
; OTHER INFORMATION: n equals a, t, c, or g
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (28257)..(28258)
; OTHER INFORMATION: n equals a, t, c, or g
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (84773)..(84773)
; OTHER INFORMATION: n equals a, t, c, or g
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (84808)..(84808)
; OTHER INFORMATION: n equals a, t, c, or g
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (84812)..(84812)
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; LOCATION: (98120)..(98120)
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; OTHER INFORMATION: n equals a, t, c, or g
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Best Local Similarity 56.5%; Pred.No. 1.7;
Matches 65; Conservative 0; Mismatches 50; Indels 0; Gaps 0;

QY 3 AGACGGTTATCTGTGGCAAGACGGGCTGCAAGTACACTTGTGGATATTGGAGAAAA 62
Db 210409 ATACAGTTGTGGATTACAGCTTACCTGCAAGTTTAAATAGCTGATATTTCTGGAAGA 210468
QY 63 CAAATACTGCAATAGGGAATGCACATGGAAGCACCCAGAGGTTAATACGGCTAT 117
Db 210469 TAAGCCAGAAATGCACATTTTATATGGAAGTGTCTTAGCTATAATTTTCAGGTTT 210523

RESULT 6

US-09-830-230A-629
; Sequence 629, Application US/09830230A
; Patent No. 6902893
; GENERAL INFORMATION:
; APPLICANT: Human Genome Sciences, Inc.
; TITLE OF INVENTION: Lyme Disease Vaccines
; FILE REFERENCE: PB481US
; CURRENT APPLICATION NUMBER: US/09/830,230A
; CURRENT FILING DATE: 2001-09-27
; PRIOR APPLICATION NUMBER: PCT/US98/12718
; PRIOR FILING DATE: 1998-06-18
; PRIOR APPLICATION NUMBER: 60/057,483
; PRIOR FILING DATE: 1997-09-03

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; PRIOR APPLICATION NUMBER: 60/053,344
; PRIOR FILING DATE: 1997-07-22
; PRIOR APPLICATION NUMBER: 60/053,377
; PRIOR FILING DATE: 1997-07-22
; PRIOR APPLICATION NUMBER: 60/050,359
; PRIOR FILING DATE: 1997-06-20
; NUMBER OF SEQ ID NOS: 756
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 629
; LENGTH: 3990
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1139)
; OTHER INFORMATION: n equals a,t,g, or c
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; LOCATION: (1143)
; OTHER INFORMATION: n equals a,t,g, or c
; FEATURE:
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; LOCATION: (1148)
; OTHER INFORMATION: n equals a,t,g, or c
; FEATURE:
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; LOCATION: (1210)
; OTHER INFORMATION: n equals a,t,g, or c
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; LOCATION: (1244)
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; FEATURE:
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; LOCATION: (1247)
; OTHER INFORMATION: n equals a,t,g, or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1250)
; OTHER INFORMATION: n equals a,t,g, or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1251)
; OTHER INFORMATION: n equals a,t,g, or c
; US-09-830-230A-629

Query Match
Best Local Similarity 16.9%; Score 32.4; DB 3; Length 3990;
Matches 66; Conservative 0; Mismatches 56; Indels 0; Gaps 0;

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Db 361 GCTACAAATCCGATTGCTGCTGCTATTGGGAATAAAGATGAGGATGCGGATTTTGGTGAT 420

Qy 89 GGAAGCACCGAGGAGGTAATTACGGCTATTGCTACGGATTTGGTGCTATTGCCAAGGAT 148
Db 421 GGGATGAAGAAGGATGATCAGATTGCTGCTGCTATTGCTTTGAGGGGGATGGCTAAGGAT 480

Qy 149 TG 150
Db 481 GG 482

RESULT 7
US-09-125-619-3
; Sequence 3, Application US/09125619
; Patent No. 6437116
; GENERAL INFORMATION:
; APPLICANT: NORRIS, STEVEN J.
; APPLICANT: JING-REN, ZHANG
; APPLICANT: HARDHAM, JOHN M.
; APPLICANT: HOWELL, JERRILYN K.
; APPLICANT: BARBOUR, ALAN G.
; TITLE OF INVENTION: VMP-LIKE SEQUENCES OF PATHOGENIC BORRELIA
; FILE REFERENCE: UTSH:234USD3
; CURRENT APPLICATION NUMBER: US/09125619
; PRIOR FILING DATE: 1997-07-22
; NUMBER OF SEQ ID NOS: 756
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 629
; LENGTH: 3990
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1139)
; OTHER INFORMATION: n equals a,t,g, or c
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; LOCATION: (1143)
; OTHER INFORMATION: n equals a,t,g, or c
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; LOCATION: (1148)
; OTHER INFORMATION: n equals a,t,g, or c
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; LOCATION: (1210)
; OTHER INFORMATION: n equals a,t,g, or c
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; LOCATION: (1244)
; OTHER INFORMATION: n equals a,t,g, or c
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; NAME/KEY: misc_feature
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; OTHER INFORMATION: n equals a,t,g, or c
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; OTHER INFORMATION: n equals a,t,g, or c
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; LOCATION: (1251)
; OTHER INFORMATION: n equals a,t,g, or c
; US-09-830-230A-629
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; APPLICANT: WEINSTOCK, GEORGE M.
; TITLE OF INVENTION: VMP-LIKE SEQUENCES OF PATHOGENIC BORRELIA
; FILE REFERENCE: UTSH:234
; CURRENT APPLICATION NUMBER: US/09125,619
; CURRENT FILING DATE: 1999-01-27
; NUMBER OF SEQ ID NOS: 48
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 7766
; TYPE: DNA
; ORGANISM: Borrelia burgdorferi
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (127)
; OTHER INFORMATION: R = A OR G
; US-09-125-619-3

Query Match
Best Local Similarity 16.9%; Score 32.4; DB 3; Length 7766;
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Qy 29 GCTGCAAAATACACTTGCTGGATATTGGGAGAAAACAATACTGCAATAGGGAATGCACAT 88
Db 3979 GCTACAAATCCGATTGCTGCTGCTATTGGGAATAAAGATGAGGATGCGGATTTTGGTGAT 4038

Qy 89 GGAAGCACCGAGGAGGTAATTACGGCTATTGCTACGGATTTGGTGCTATTGCCAAGGAT 148
Db 4039 GGGATGAAGAAGGATGATCAGATTGCTGCTGCTATTGCTTTGAGGGGGATGGCTAAGGAT 4098

Qy 149 TG 150
Db 4099 GG 4100

RESULT 8
US-10-222-566-3
; Sequence 3, Application US/10222566
; Patent No. 6719983
; GENERAL INFORMATION:
; APPLICANT: NORRIS, STEVEN J.
; APPLICANT: JING-REN, ZHANG
; APPLICANT: HARDHAM, JOHN M.
; APPLICANT: HOWELL, JERRILYN K.
; APPLICANT: BARBOUR, ALAN G.
; APPLICANT: WEINSTOCK, GEORGE M.
; TITLE OF INVENTION: VMP-LIKE SEQUENCES OF PATHOGENIC BORRELIA
; FILE REFERENCE: UTSH:234USD3
; CURRENT APPLICATION NUMBER: US/10222,566
; PRIOR FILING DATE: 2002-08-16
; PRIOR FILING DATE: 1999-01-27
; NUMBER OF SEQ ID NOS: 50
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 7766
; TYPE: DNA
; ORGANISM: Borrelia burgdorferi
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (127)
; OTHER INFORMATION: R = A OR G
; US-10-222-566-3

Query Match
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Matches 66; Conservative 0; Mismatches 56; Indels 0; Gaps 0;

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Qy 89 GGAAGCACCGAGGAGGTAATTACGGCTATTGCTACGGATTTGGTGCTATTGCCAAGGAT 148
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Qy 149 TG 150
Db 4099 GG 4100
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Db 4039 GCGATGAGGAGGATGATGATGCTGCTGCTATTGCTTTGAGGGGATGCTAAGGAT 4098
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Db 4099 GG 4100

RESULT 9

US-10-143-024A-3
; Sequence 3, Application US/10143024A
; Patent No. 6740744
; GENERAL INFORMATION:
; APPLICANT: NORRIS, STEVEN J.
; APPLICANT: JING-REN, ZHANG
; APPLICANT: HARDHAM, JOHN M.
; APPLICANT: HOWELL, JERRILYN K.
; APPLICANT: BARBOUR, ALAN G.
; APPLICANT: WEINSTOCK, GEORGE M.
; TITLE OF INVENTION: VMP-LIKE SEQUENCES OF PATHOGENIC BORRELIA
; FILE REFERENCE: UTSH:234USD1
; CURRENT APPLICATION NUMBER: US/10/143,024A
; CURRENT FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/125,619
; PRIOR FILING DATE: 1999-01-27
; PRIOR APPLICATION NUMBER: PCT/US97/02952
; PRIOR FILING DATE: 1997-02-20
; PRIOR APPLICATION NUMBER: 60/012,028
; PRIOR FILING DATE: 1996-02-21
; NUMBER OF SEQ ID NOS: 50
; SOFTWARE: PatentIn Ver. 2.1
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; OTHER INFORMATION: R = A OR G
US-10-143-024A-3

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Best Local Similarity 54.1%; Pred. No. 1.5;
Matches 66; Conservative 0; Mismatches 56; Indels 0; Gaps 0;
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Db 4039 GGGATGAAGAAGGATGATGCTGCTGCTATTGCTGCTATTGCTTTGAGGGGATGGCTAAGGAT 4098
QY 149 TG 150
Db 4099 GG 4100

RESULT 10

US-10-222-162-3
; Sequence 3, Application US/10222162
; Patent No. 6878616
; GENERAL INFORMATION:
; APPLICANT: NORRIS, STEVEN J.
; APPLICANT: JING-REN, ZHANG
; APPLICANT: HARDHAM, JOHN M.
; APPLICANT: HOWELL, JERRILYN K.
; APPLICANT: BARBOUR, ALAN G.
; APPLICANT: WEINSTOCK, GEORGE M.
; TITLE OF INVENTION: VMP-LIKE SEQUENCES OF PATHOGENIC BORRELIA
; FILE REFERENCE: UTSH:234USD4
; CURRENT APPLICATION NUMBER: US/10/222,162
; CURRENT FILING DATE: 2002-08-16
; PRIOR APPLICATION NUMBER: 09/125,619

; PRIOR FILING DATE: 1999-01-27
; NUMBER OF SEQ ID NOS: 50
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 7766
; TYPE: DNA
; ORGANISM: Borrelia burgdorferi
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (127)
; OTHER INFORMATION: R = A OR G
US-10-222-162-3

Query Match 16.9%; Score 32.4; DB 3; Length 7766;
Best Local Similarity 54.1%; Pred. No. 1.5;
Matches 66; Conservative 0; Mismatches 56; Indels 0; Gaps 0;
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RESULT 11

US-09-949-016-17726/c
; Sequence 17726, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 17726
; LENGTH: 601
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-17726

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Best Local Similarity 52.2%; Pred. No. 0.75;
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Db 190 AGACAGACTGAATTTGCGATGAAATATTTTGTAGGAGGAGGATGTAAATAGCCGACA 131
QY 98 GAGGAGTAATACGGCTATTGCTACGGATTTGGTGCTATTGCGAAGGATTTGCCGATA 157
Db 130 AAGGGGTCCACACAGCTCTTTGAGTAGCAATTTGGGGGTGTGTGTGGG 71
QY 158 GTACACCGACTTGGCC 173
Db 70 GTGACCGAATTTGGC 55

RESULT 12

Sun Jan 22 16:20:38 2006

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, OPERATING SYSTEM: PC-DOS/MS-DOS
, SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
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, CURRENT APPLICATION DATA:
, APPLICATION NUMBER: US/09/023,655
, FILING DATE: HERewith
, CLASSIFICATION:
, PRIOR APPLICATION DATA:
, APPLICATION NUMBER:
, FILING DATE:
, CLASSIFICATION:
, ATTORNEY/AGENT INFORMATION:
, NAME: Zeller, Karen J.
, REGISTRATION NUMBER: 37,071
, REFERENCE/DOCKET NUMBER: PA-0001 US
, TELECOMMUNICATION INFORMATION:
, TELEPHONE: (650) 855-0555
, TELEFAX: (650) 845-4166
, INFORMATION FOR SEQ ID NO: 1285:
, SEQUENCE CHARACTERISTICS:
, LENGTH: 2560 base pairs
, TYPE: nucleic acid
, STRANDEDNESS: single
, TOPOLOGY: linear
, IMMEDIATE SOURCE:
, LIBRARY: GENBANK
, CLONE: G312466
, US-09-023-655-1285

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Query Match	16.7%	Score 32;	DB 3;	Length 2560;
Best Local Similarity	52.2%	Pred. No. 1.3;		
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Qy	98	GAGGAGGTAAATACGGCTATTGCTACGGATTTGGGTGCTATTCCGAAGGATTGTCGATA	157	
Db	2399	AAGGGGTCCAAACAGCTCTTTGAGTAGGCAATTTGTTAGAGCTTGGGGGTGTGTGTGTGGG	2458	
Qy	158	GTRACCGACTTGCC	173	
Db	2459	GTGACCGCAATTTGGC	2474	

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Job time : 113 secs

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OM nucleic - nucleic search, using sw model

Run on: January 21, 2006, 21:36:26 ; Search time 224 Seconds
(without alignments)
706.520 Million cell updates/sec

Title: US-10-721-793-115
Perfect score: 192
Sequence: 1 aaacaggttatctgtgga.....cccttctaataaaagatgc 192

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 6049916 seqs, 412136615 residues

Total number of hits satisfying chosen parameters: 12099832

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications NA New:

- 1: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq.*
- 2: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq.*
- 3: /cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq.*
- 4: /cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq.*
- 5: /cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq.*
- 6: /cgn2_6/ptodata/1/pubpna/US11_NEW_PUB.seq.*
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- 10: /cgn2_6/ptodata/1/pubpna/US15_NEW_PUB.seq.*
- 11: /cgn2_6/ptodata/1/pubpna/US16_NEW_PUB.seq.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	30.8	16.0	3493	7	US-10-750-185-56579 Sequence 56579, A
2	30.8	16.0	3493	7	US-10-750-623-56579 Sequence 56579, A
3	30.2	15.7	1100	7	US-10-793-626-1201 Sequence 1201, Ap
4	30.2	15.7	3153	7	US-10-793-626-3441 Sequence 3441, Ap
5	29.8	15.5	2515	7	US-10-750-185-52777 Sequence 52777, A
6	29.8	15.5	2515	7	US-10-750-623-52777 Sequence 52777, A
7	29.6	15.4	4103	7	US-10-793-626-3532 Sequence 3532, Ap
8	29.2	15.2	3394	7	US-10-750-185-31353 Sequence 31353, A
9	29	15.1	1232	7	US-10-750-623-31353 Sequence 31353, A
10	29	15.1	1232	7	US-10-750-185-41036 Sequence 41036, A
11	28.8	15.0	1764	7	US-10-750-623-41036 Sequence 41036, A
12	28.8	15.0	1764	7	US-10-750-185-54668 Sequence 54668, A
13	28.2	14.7	1002	7	US-10-750-623-54668 Sequence 54668, A
14	28.2	14.7	1002	7	US-10-750-185-57766 Sequence 57766, A
15	28	14.6	1272	7	US-10-750-623-57766 Sequence 57766, A
16	28	14.6	1272	7	US-10-750-185-57766 Sequence 57766, A
17	28	14.6	175023	8	US-11-121-086-18 Sequence 18, Appl
18	27.8	14.5	2139	7	US-10-821-234-596 Sequence 596, App
19	27.8	14.5	2529	8	US-11-136-527-3182 Sequence 3182, Ap
20	27.8	14.5	24774	7	US-10-829-826B-53 Sequence 53, Appl
21	27.8	14.5	28920	7	US-10-829-826B-46 Sequence 46, Appl
22	27.8	14.5	29206	7	US-10-829-826B-56 Sequence 56, Appl

ALIGNMENTS

RESULT 1

US-10-750-185-56579
; Sequence 56579, Application US/10750185
; Publication No. US200502603A1

; GENERAL INFORMATION:

; APPLICANT: MMI GENOMICS, INC.

; APPLICANT: DENISE, Sue K.

; APPLICANT: KERR, Richard

; APPLICANT: ROSENFELD, David

; APPLICANT: HOLM, Tom

; APPLICANT: BATES, Stephen

; APPLICANT: FANTIN, Dennis

; TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS

; FILE REFERENCE: MM11100-2

; CURRENT APPLICATION NUMBER: US/10/750,185

; CURRENT FILING DATE: 2003-12-31

; PRIOR APPLICATION NUMBER: US 60/437,482

; PRIOR FILING DATE: 2002-12-31

; NUMBER OF SEQ ID NOS: 64922

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 56579

; LENGTH: 3493

; TYPE: DNA

; ORGANISM: Bovine 19866880937875

US-10-750-185-56579

Query Match 16.0%; Score 30.8; DB 7; Length 3493;

Best Local Similarity 52.3%; Pred. No. 1;

Matches 68; Conservative 0; Mismatches 62; Indels 0; Gaps 0;

QY 30 CTGCAATACATTGCTGGATATTGGGAGAAAACAATACTGCAATAGGGAATGCATG 89
778 CTTAAAAACAATTGATCATTTGTTAAAGAGAAATACTCAATTTCAATTTTGCATG 837

QY 90 GAAGACCCGAGGAGTAATTACGGCTATTGTCAGGATTTGGGTGCTATTGGCAAGGATT 149
838 CTTAGAGAAACAACATCAATATATATATATAGTTAGTTAGTCAGTCGCTCACTGGT 897

QY 150 GTCCGATAGT 159
898 GTCCGACTGT 907

RESULT 2

US-10-750-623-56579

Sequence 50, Appl
Sequence 49, Appl
Sequence 70, Appl
Sequence 71, Appl
Sequence 72, Appl
Sequence 66, Appl
Sequence 65, Appl
Sequence 68, Appl
Sequence 67, Appl
Sequence 69, Appl
Sequence 87, Appl
Sequence 79, Appl
Sequence 80, Appl
Sequence 82, Appl
Sequence 83, Appl
Sequence 84, Appl
Sequence 86, Appl
Sequence 76, Appl

```
; Sequence 56579, Application US/10750623
; Publication No. US20050287531A1
; GENERAL INFORMATION:
; APPLICANT: MMI GENOMICS, INC.
; APPLICANT: DENISE, Sue K.
; APPLICANT: KERR, Richard
; APPLICANT: ROSENFELD, David
; APPLICANT: HOLM, Tom
; APPLICANT: BATES, Stephen
; APPLICANT: FANTIN, Dennis
; TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS
; FILE REFERENCE: MM1100-1
; CURRENT APPLICATION NUMBER: US/10/750,623
; CURRENT FILING DATE: 2003-12-31
; PRIOR APPLICATION NUMBER: US 60/437,482
; PRIOR FILING DATE: 2002-12-31
; NUMBER OF SEQ ID NOS: 64922
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 56579
; LENGTH: 3493
; TYPE: DNA
; ORGANISM: Bovine 19866880937875
US-10-750-623-56579

Query Match 16.0%; Score 30.8; DB 7; Length 3493;
Best Local Similarity 52.3%; Pred. No. 1;
Matches 68; Conservative 0; Mismatches 62; Indels 0; Gaps 0;

Qy 30 CTCGAAATACACTTGGCTGGATATTGGGAGAAAAACAATACTGCAATAGGGAATGCACATG 89
Db CTTAAAAACAATTGATCATTTGTTAAAGAAGGAATACTCAAAATTTCAATTTTGCATG 837

Qy 90 GAAGCACCAGGAGGTAATACGGCTATTGCTACGGATTTCGGTGCTATTCCGAAGGATT 149
Db CTTAGAAAGAAAAACACAATAACATCATATAATAATCACTTTAGTTTCAGTCGCTCAGTGT 897

Qy 150 GTCCGATAGT 159
Db GTCCGACTGT 907

RESULT 3
US-10-793-626-1201
; Sequence 1201, Application US/10793626
; Publication No. US20050255478A1
; GENERAL INFORMATION:
; APPLICANT: KIMMERLY, WILLIAM JOHN
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
; FILE REFERENCE: PU3480US
; CURRENT APPLICATION NUMBER: US/10/793,626
; CURRENT FILING DATE: 2004-03-04
; PRIOR APPLICATION NUMBER: 60/164,258
; PRIOR FILING DATE: 1999-11-09
; NUMBER OF SEQ ID NOS: 4472
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1201
; LENGTH: 1100
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: nucleic acid sequence
US-10-793-626-1201

Query Match 15.7%; Score 30.2; DB 7; Length 1100;
Best Local Similarity 52.8%; Pred. No. 1;
Matches 65; Conservative 0; Mismatches 58; Indels 0; Gaps 0;

Qy 29 GCTGCAAAATACACTTGGCTGGATATTGGGAGAAAAACAATACTGCAATAGGGAATGCACAT 88
Db GCTGAAAAAACAATAATCTATTGGTATTCGCGATGGATGCTACTGTAAGGTAATGATCAA 369

Qy 89 GGAAGCACCAGGAGGTAATACGGCTATTGCTACGGATTTCGGTGCTATTGCGAGGAT 148

; Sequence 56579, Application US/10750623
; Publication No. US20050287531A1
; GENERAL INFORMATION:
; APPLICANT: MMI GENOMICS, INC.
; APPLICANT: DENISE, Sue K.
; APPLICANT: KERR, Richard
; APPLICANT: ROSENFELD, David
; APPLICANT: HOLM, Tom
; APPLICANT: BATES, Stephen
; APPLICANT: FANTIN, Dennis
; TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS
; FILE REFERENCE: MM1100-2
; CURRENT APPLICATION NUMBER: US/10/750,185
; CURRENT FILING DATE: 2003-12-31
; PRIOR APPLICATION NUMBER: US 60/437,482
; PRIOR FILING DATE: 2002-12-31
; NUMBER OF SEQ ID NOS: 64922
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 52777
; LENGTH: 2515
; TYPE: DNA
; ORGANISM: Bovine 19866880359186
US-10-750-185-52777

Query Match 15.7%; Score 30.2; DB 7; Length 1100;
Best Local Similarity 52.8%; Pred. No. 1;
Matches 65; Conservative 0; Mismatches 58; Indels 0; Gaps 0;

Qy 29 GCTGCAAAATACACTTGGCTGGATATTGGGAGAAAAACAATACTGCAATAGGGAATGCACAT 88
Db GCTGAAAAAACAATAATCTATTGGTATTCGCGATGGATGCTACTGTAAGGTAATGATCAA 369

Qy 89 GGAAGCACCAGGAGGTAATACGGCTATTGCTACGGATTTCGGTGCTATTGCGAGGAT 148

; Sequence 52777, Application US/10750185
; Publication No. US200502603A1
; GENERAL INFORMATION:
; APPLICANT: MMI GENOMICS, INC.
; APPLICANT: DENISE, Sue K.
; APPLICANT: KERR, Richard
; APPLICANT: ROSENFELD, David
; APPLICANT: HOLM, Tom
; APPLICANT: BATES, Stephen
; APPLICANT: FANTIN, Dennis
; TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
; FILE REFERENCE: MM1100-2
; CURRENT APPLICATION NUMBER: US/10/750,185
; CURRENT FILING DATE: 2003-12-31
; PRIOR APPLICATION NUMBER: US 60/437,482
; PRIOR FILING DATE: 2002-12-31
; NUMBER OF SEQ ID NOS: 64922
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 52777
; LENGTH: 2515
; TYPE: DNA
; ORGANISM: Bovine 19866880359186
US-10-750-185-52777

Db 370 GTACGTTTCGAAGTGGCAATCAAGCTTTAAATCCTAAGTTAAAGCAATTTGCACCTGTT 429
Qy 149 TGT 151
Db 430 CGT 432

RESULT 4
US-10-793-626-3441/c
; Sequence 3441, Application US/10793626
; Publication No. US20050255478A1
; GENERAL INFORMATION:
; APPLICANT: KIMMERLY, WILLIAM JOHN
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
; FILE REFERENCE: PU3480US
; CURRENT APPLICATION NUMBER: US/10/793,626
; CURRENT FILING DATE: 2004-03-04
; PRIOR APPLICATION NUMBER: 60/164,258
; PRIOR FILING DATE: 1999-11-09
; NUMBER OF SEQ ID NOS: 4472
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3441
; LENGTH: 3153
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: nucleic acid sequence
US-10-793-626-3441

Query Match 15.7%; Score 30.2; DB 7; Length 3153;
Best Local Similarity 52.8%; Pred. No. 1.6;
Matches 65; Conservative 0; Mismatches 58; Indels 0; Gaps 0;

Qy 29 GCTGCAAAATACACTTGGCTGGATATTGGGAGAAAAACAATACTGCAATAGGGAATGCACAT 88
Db GCTGAAAAAACAATAATCTATTGGTATTCGCGATGGATGCTACTGTAAGGTAATGATCAA 729

Qy 89 GGAAGCACCAGGAGGTAATACGGCTATTGCTACGGATTTCGGTGCTATTGCGAAGGAT 148
Db GTACGTTTCGAAGTGGCAATCAAGCTTTAAATCCTAAGTTAAAGCAATTTGCACCTGTT 669

Qy 149 TGT 151
Db 668 CGT 666

RESULT 5
US-10-750-185-52777
; Sequence 52777, Application US/10750185
; Publication No. US200502603A1
; GENERAL INFORMATION:
; APPLICANT: MMI GENOMICS, INC.
; APPLICANT: DENISE, Sue K.
; APPLICANT: KERR, Richard
; APPLICANT: ROSENFELD, David
; APPLICANT: HOLM, Tom
; APPLICANT: BATES, Stephen
; APPLICANT: FANTIN, Dennis
; TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
; FILE REFERENCE: MM1100-2
; CURRENT APPLICATION NUMBER: US/10/750,185
; CURRENT FILING DATE: 2003-12-31
; PRIOR APPLICATION NUMBER: US 60/437,482
; PRIOR FILING DATE: 2002-12-31
; NUMBER OF SEQ ID NOS: 64922
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 52777
; LENGTH: 2515
; TYPE: DNA
; ORGANISM: Bovine 19866880359186
US-10-750-185-52777
```

Query Match 15.5%; Score 29.8; DB 7; Length 2515;
Best Local Similarity 60.5%; Pred. No. 2;
Matches 49; Conservative 0; Mismatches 32; Indels 0; Gaps 0;

QY 3 AGACGGTTATCTGGTGGCAACAGCGGCTGCAATACACTTCTCGATATTTGGGAGAAA 62
DB 121 AGATATTCTCTGGTAGGAACTGTGAAGGAGTTCAAGGTCAGATCTTGAGAGAA 180
QY 63 CAAATACTGCAATAGGAATG 83
DB 181 ATCAATCTGCTATAAGCAATG 201

RESULT 6

US-10-750-623-52777
; Sequence 52777, Application US/10750623
; Publication No. US20050287531A1

GENERAL INFORMATION:

; APPLICANT: MMI GENOMICS, INC.
; APPLICANT: DENISE, Sue K.
; APPLICANT: KERR, Richard
; APPLICANT: ROSENFELD, David
; APPLICANT: HOLM, Tom
; APPLICANT: BATES, Stephen
; APPLICANT: FANTIN, Dennis
; TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS
; FILE REFERENCE: MM1100-1
; CURRENT APPLICATION NUMBER: US/10/750,623
; CURRENT FILING DATE: 2003-12-31
; PRIOR APPLICATION NUMBER: US 60/437,482
; PRIOR FILING DATE: 2002-12-31
; NUMBER OF SEQ ID NOS: 64922
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 52777
; LENGTH: 2515
; TYPE: DNA
; ORGANISM: Bovine 19866880359186
US-10-750-623-52777

Query Match 15.5%; Score 29.8; DB 7; Length 2515;
Best Local Similarity 60.5%; Pred. No. 2;
Matches 49; Conservative 0; Mismatches 32; Indels 0; Gaps 0;

QY 3 AGACGGTTATCTGGTGGCAACAGCGGCTGCAATACACTTCTCGATATTTGGGAGAAA 62
DB 121 AGATATTCTCTGGTAGGAACTGTGAAGGAGTTCAAGGTCAGATCTTGAGAGAA 180
QY 63 CAAATACTGCAATAGGAATG 83
DB 181 ATCAATCTGCTATAAGCAATG 201

RESULT 7

US-10-793-626-3532
; Sequence 3532, Application US/10793626
; Publication No. US20050255478A1

GENERAL INFORMATION:

; APPLICANT: KIMMERLY, WILLIAM JOHN
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
; FILE REFERENCE: PUS480US
; CURRENT APPLICATION NUMBER: US/10/793,626
; CURRENT FILING DATE: 2004-03-04
; PRIOR APPLICATION NUMBER: 60/164,258
; PRIOR FILING DATE: 1999-11-09
; NUMBER OF SEQ ID NOS: 4472
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3532
; LENGTH: 4103
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic

; OTHER INFORMATION: nucleic acid sequence
US-10-793-626-3532

Query Match 15.4%; Score 29.6; DB 7; Length 4103;
Best Local Similarity 50.7%; Pred. No. 2.9;
Matches 71; Conservative 0; Mismatches 69; Indels 0; Gaps 0;

QY 52 TTGGAGAGAAAACAATACTGCAATAGGGAATGCAATGGAAGCACATGGAAGCAGGAGGTAATTAC 111
DB 3963 TTATGATAAATATAAATAATTAATGCCGATATTCATTGGAGGCCCGGAATTTGTTAAGAAA 4022
QY 112 GGCTATTGCTACGGATTTGGGTGCTATTGCGAAGGATTTGTCGATAGTACACCGACTTGG 171
DB 4023 AACACTTAACAAAAATTTAGGTGTTAATCTCTGAGTATTACGCTAGTAGATTTTACTCG 4082
QY 172 CCCCTTTCTTAATAAAGATG 191
DB 4083 ATTTGAAAAAATGATAGATG 4102

RESULT 8

US-10-793-626-3629/c
; Sequence 3629, Application US/10793626
; Publication No. US20050255478A1

GENERAL INFORMATION:

; APPLICANT: KIMMERLY, WILLIAM JOHN
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
; FILE REFERENCE: PUS480US
; CURRENT APPLICATION NUMBER: US/10/793,626
; CURRENT FILING DATE: 2004-03-04
; PRIOR APPLICATION NUMBER: 60/164,258
; PRIOR FILING DATE: 1999-11-09
; NUMBER OF SEQ ID NOS: 4472
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3629
; LENGTH: 3394
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: nucleic acid sequence
US-10-793-626-3629

Query Match 15.2%; Score 29.2; DB 7; Length 3394;
Best Local Similarity 53.5%; Pred. No. 3.7;
Matches 61; Conservative 0; Mismatches 53; Indels 0; Gaps 0;

QY 29 GCTGCAAAATACACTTGTCTGGATATTGGGAGAGAAAACAATACTGCAATAGGGAATGCACAT 88
DB 2110 GCAGCGAACTTAGAGCGGCATATATGCCGAATGCTGTAGTAAGGTATTAGACATTCATCT 2051
QY 89 GGAAGCAGGAGGAGTAAATACGGCTATTGCTACCGATTTTGGTGCTATTGG 142
DB 2050 GAATTAATTGATGATTTAAAAAAGGCTAACGCATAGGAGGTGTATCACATGAG 1997

RESULT 9

US-10-750-185-31353
; Sequence 31353, Application US/10750185
; Publication No. US20050260603A1

GENERAL INFORMATION:

; APPLICANT: MMI GENOMICS, INC.
; APPLICANT: DENISE, Sue K.
; APPLICANT: KERR, Richard
; APPLICANT: ROSENFELD, David
; APPLICANT: HOLM, Tom
; APPLICANT: BATES, Stephen
; APPLICANT: FANTIN, Dennis
; TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
; FILE REFERENCE: MM1100-2
; CURRENT APPLICATION NUMBER: US/10/750,185
; CURRENT FILING DATE: 2003-12-31
; PRIOR APPLICATION NUMBER: US 60/437,482

; PRIOR FILING DATE: 2002-12-31
 ; NUMBER OF SEQ ID NOS: 64922
 ; SOFTWARE: PatentIN version 3.1
 ; SEQ ID NO 31353
 ; LENGTH: 1232
 ; TYPE: DNA
 ; ORGANISM: Bovine 19866880618861
 US-10-750-185-31353

Query Match 15.1%; Score 29; DB 7; Length 1232;
 Best Local Similarity 58.8%; Pred. No. 2.9;
 Matches 50; Conservative 0; Mismatches 35; Indels 0; Gaps 0;

Qy 23 AGACGGGCTGCAATACACTTCTGGATATTGGGAGAAACAAATACATGCAATAGGGAAT 82
 Db 255 AAAGGGGAGAAATAACAAATGTTGGAGAAAGGAACCTTCATATCTGTTGGTGGGAAT 314

Qy 83 GCACATGGAAGCAGCGAGGATA 107

Db 315 GTAAATTGATGAGCCACTATGGAA 339

RESULT 10

US-10-750-623-31353
 ; Sequence 31353, Application US/10750623
 ; Publication No. US20050287531A1

; GENERAL INFORMATION:

; APPLICANT: MMI GENOMICS, INC.

; APPLICANT: DENISE, Sue K.

; APPLICANT: KERR, Richard

; APPLICANT: ROSENFELD, David

; APPLICANT: HOLM, Tom

; APPLICANT: BATES, Stephen

; APPLICANT: FANTIN, Dennis

; TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS

; FILE REFERENCE: MM1100-1

; CURRENT APPLICATION NUMBER: US/10/750,623

; CURRENT FILING DATE: 2003-12-31

; PRIOR APPLICATION NUMBER: US 60/437,482

; PRIOR FILING DATE: 2002-12-31

; NUMBER OF SEQ ID NOS: 64922

; SOFTWARE: PatentIN version 3.1

; SEQ ID NO 31353

; LENGTH: 1232

; TYPE: DNA

; ORGANISM: Bovine 19866880618861

US-10-750-623-31353

Query Match 15.1%; Score 29; DB 7; Length 1232;
 Best Local Similarity 58.8%; Pred. No. 2.9;
 Matches 50; Conservative 0; Mismatches 35; Indels 0; Gaps 0;

Qy 23 AGACGGGCTGCAATACACTTCTGGATATTGGGAGAAACAAATACATGCAATAGGGAAT 82
 Db 255 AAAGGGGAGAAATAACAAATGTTGGAGAAAGGAACCTTCATATCTGTTGGTGGGAAT 314

Qy 83 GCACATGGAAGCAGCGAGGATA 107

Db 315 GTAAATTGATGAGCCACTATGGAA 339

RESULT 11

US-10-750-185-41036
 ; Sequence 41036, Application US/10750185
 ; Publication No. US20050260603A1

; GENERAL INFORMATION:

; APPLICANT: MMI GENOMICS, INC.

; APPLICANT: DENISE, Sue K.

; APPLICANT: KERR, Richard

; APPLICANT: ROSENFELD, David

; APPLICANT: HOLM, Tom

; APPLICANT: BATES, Stephen

; APPLICANT: FANTIN, Dennis

; TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
 ; FILE REFERENCE: MM1100-2
 ; CURRENT APPLICATION NUMBER: US/10/750,185
 ; CURRENT FILING DATE: 2003-12-31
 ; PRIOR APPLICATION NUMBER: US 60/437,482
 ; PRIOR FILING DATE: 2002-12-31
 ; NUMBER OF SEQ ID NOS: 64922
 ; SOFTWARE: PatentIN version 3.1
 ; SEQ ID NO 41036
 ; LENGTH: 1764
 ; TYPE: DNA
 ; ORGANISM: Bovine 19866881141918
 US-10-750-185-41036

Query Match 15.0%; Score 28.8; DB 7; Length 1764;
 Best Local Similarity 54.8%; Pred. No. 3.9;
 Matches 57; Conservative 0; Mismatches 47; Indels 0; Gaps 0;

Qy 9 TTATCTGGTGACAAGACGGGCTGCAATACACTTGTGGATATTGGAGAAAACAATA 68
 Db 1242 TTGCTGGGAATCAGTGGGGTTGCAAGAGTTCAGACGTGACTTGGCAACTAACAACA 1301

Qy 69 CTGCAATAGGAATGCATGGAAGCACCGAGGAGGTAAATTACG 112

Db 1302 CAACAAAAATGATACACGTGATGCGCCCGGCGAGTAATCAAG 1345

RESULT 12

US-10-750-623-41036
 ; Sequence 41036, Application US/10750623
 ; Publication No. US20050287531A1

; GENERAL INFORMATION:

; APPLICANT: MMI GENOMICS, INC.

; APPLICANT: DENISE, Sue K.

; APPLICANT: KERR, Richard

; APPLICANT: ROSENFELD, David

; APPLICANT: HOLM, Tom

; APPLICANT: BATES, Stephen

; APPLICANT: FANTIN, Dennis

; TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS

; FILE REFERENCE: MM1100-1

; CURRENT APPLICATION NUMBER: US/10/750,623

; CURRENT FILING DATE: 2003-12-31

; PRIOR APPLICATION NUMBER: US 60/437,482

; PRIOR FILING DATE: 2002-12-31

; NUMBER OF SEQ ID NOS: 64922

; SOFTWARE: PatentIN version 3.1

; SEQ ID NO 41036

; LENGTH: 1764

; TYPE: DNA

; ORGANISM: Bovine 19866881141918

US-10-750-623-41036

Query Match 15.0%; Score 28.8; DB 7; Length 1764;
 Best Local Similarity 54.8%; Pred. No. 3.9;
 Matches 57; Conservative 0; Mismatches 47; Indels 0; Gaps 0;

Qy 9 TTATCTGGTGACAAGACGGGCTGCAATACACTTGTGGATATTGGAGAAAACAATA 68
 Db 1242 TTGCTGGGAATCAGTGGGGTTGCAAGAGTTCAGACGTGACTTGGCAACTAACAACA 1301

Qy 69 CTGCAATAGGAATGCATGGAAGCACCGAGGAGGTAAATTACG 112

Db 1302 CAACAAAAATGATACACGTGATGCGCCCGGCGAGTAATCAAG 1345

RESULT 13

US-10-750-185-54668
 ; Sequence 54668, Application US/10750185
 ; Publication No. US20050260603A1

; GENERAL INFORMATION:

; APPLICANT: MMI GENOMICS, INC.

; APPLICANT: DENISE, Sue K.

APPLICANT: KERR, Richard
APPLICANT: ROSENFELD, David
APPLICANT: HOLM, Tom
APPLICANT: BATES, Stephen
APPLICANT: FANTIN, Dennis
TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
FILE REFERENCE: MM1100-2
CURRENT APPLICATION NUMBER: US/10/750,185
PRIOR FILING DATE: 2003-12-31
PRIOR APPLICATION NUMBER: US 60/437,482
NUMBER OF SEQ ID NOS: 64922
SOFTWARE: PatentIN version 3.1
SEQ ID NO 54668
LENGTH: 1002
TYPE: DNA
ORGANISM: Bovine 19866880898655
US-10-750-185-54668

Query Match 14.7%; Score 28.2; DB 7; Length 1002;
Best Local Similarity 61.6%; Pred. No. 5;
Matches 45; Conservative 0; Mismatches 28; Indels 0; Gaps 0;
QY 75 TAGGGAATGCATGGAAGCAGCGAGGTAATTACGGCTATTGCTACGGATTTGGGTG 134
Db 575 TGGAGATGCTCATGATACAGAAAGCAGGATAGTGCTATGACACAGTATCTGGCTA 634
QY 135 CTATTGCGAAGGA 147
Db 635 CTATGTGTTAGGA 647

RESULT 14
US-10-750-623-54668
Sequence 54668, Application US/10750623
Publication No. US20050287531A1
GENERAL INFORMATION:
APPLICANT: MMI GENOMICS, INC.
APPLICANT: DENISE, Sue K.
APPLICANT: KERR, Richard
APPLICANT: ROSENFELD, David
APPLICANT: HOLM, Tom
APPLICANT: BATES, Stephen
APPLICANT: FANTIN, Dennis
TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS
FILE REFERENCE: MM1100-1
CURRENT APPLICATION NUMBER: US/10/750,623
CURRENT FILING DATE: 2003-12-31
PRIOR APPLICATION NUMBER: US 60/437,482
PRIOR FILING DATE: 2002-12-31
NUMBER OF SEQ ID NOS: 64922
SOFTWARE: PatentIN version 3.1
SEQ ID NO 54668
LENGTH: 1002
TYPE: DNA
ORGANISM: Bovine 19866880898655
US-10-750-623-54668

Query Match 14.7%; Score 28.2; DB 7; Length 1002;
Best Local Similarity 61.6%; Pred. No. 5;
Matches 45; Conservative 0; Mismatches 28; Indels 0; Gaps 0;
QY 75 TAGGGAATGCATGGAAGCAGCGAGGTAATTACGGCTATTGCTACGGATTTGGGTG 134
Db 575 TGGAGATGCTCATGATACAGAAAGCAGGATAGTGCTATGACACAGTATCTGGCTA 634
QY 135 CTATTGCGAAGGA 147
Db 635 CTATGTGTTAGGA 647

RESULT 15
US-10-750-185-57766

Sequence 57766, Application US/10750185
Publication No. US20050260603A1
GENERAL INFORMATION:
APPLICANT: MMI GENOMICS, INC.
APPLICANT: DENISE, Sue K.
APPLICANT: KERR, Richard
APPLICANT: ROSENFELD, David
APPLICANT: HOLM, Tom
APPLICANT: BATES, Stephen
APPLICANT: FANTIN, Dennis
TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
FILE REFERENCE: MM1100-2
CURRENT APPLICATION NUMBER: US/10/750,185
CURRENT FILING DATE: 2003-12-31
PRIOR APPLICATION NUMBER: US 60/437,482
PRIOR FILING DATE: 2002-12-31
NUMBER OF SEQ ID NOS: 64922
SOFTWARE: PatentIN version 3.1
SEQ ID NO 57766
LENGTH: 1272
TYPE: DNA
ORGANISM: Bovine 19866881046656
US-10-750-185-57766

Query Match 14.6%; Score 28; DB 7; Length 1272;
Best Local Similarity 66.7%; Pred. No. 6.5;
Matches 40; Conservative 0; Mismatches 20; Indels 0; Gaps 0;
QY 77 GGGAAATGCATGGAAGCAGCGAGGTAATTACGGCTATTGCTACGGATTTGGGTGCT 136
Db 1119 GAGAAGGCAGATGGAAGGACTGTGAAGGTGACTATAGGACTTGGTGGTGGTGT 1178

Search completed: January 22, 2006, 01:16:42
Job time : 225 secs

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OM nucleic - nucleic search, using sw model

Run on: January 21, 2006, 21:31:18 ; Search time 2178 Seconds
(without alignments)
728.981 Million cell updates/sec

Title: US-10-721-793-115
Perfect score: 192
Sequence: 1 aaagacggttctcgttgga.....ccctttctaataaagatgc 192

Scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 1.0

Searched: 9793542 seqs, 4134689005 residues

Total number of hits satisfying chosen parameters: 19587084

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

Published Applications NA Main:*

- 1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
- 2: /cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
- 3: /cgn2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
- 4: /cgn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
- 5: /cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
- 6: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
- 7: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*
- 8: /cgn2_6/ptodata/1/pubpna/US10D_PUBCOMB.seq:*
- 9: /cgn2_6/ptodata/1/pubpna/US10E_PUBCOMB.seq:*
- 10: /cgn2_6/ptodata/1/pubpna/US11_PUBCOMB.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	192	100.0	192	9	US-10-721-793-115
2	192	100.0	323	9	US-10-721-793-113
3	190.4	99.2	192	9	US-10-721-793-119
4	190.4	99.2	323	9	US-10-721-793-117
5	156.8	81.7	192	9	US-10-721-793-151
6	156.8	81.7	320	9	US-10-721-793-149
7	155.2	80.8	192	9	US-10-721-793-195
8	155.2	80.8	320	9	US-10-721-793-193
9	152	79.2	192	9	US-10-721-793-47
10	152	79.2	258	9	US-10-721-793-45
11	150.4	78.3	192	9	US-10-721-793-43
12	150.4	78.3	254	9	US-10-721-793-41
13	145.4	75.7	198	9	US-10-721-793-91
14	145.4	75.7	323	9	US-10-721-793-89
15	126.8	66.0	189	9	US-10-721-793-111
16	126.8	66.0	311	9	US-10-721-793-109
17	124.6	64.9	323	9	US-10-721-793-101
18	124.6	64.9	323	9	US-10-721-793-105
19	123.2	64.2	192	9	US-10-721-793-103
20	123.2	64.2	192	9	US-10-721-793-107
21	123	64.1	195	9	US-10-721-793-147
22	123	64.1	198	9	US-10-721-793-175
23	123	64.1	323	9	US-10-721-793-145

24	123	64.1	323	9	US-10-721-793-173
25	119.8	62.4	198	9	US-10-721-793-67
26	119.8	62.4	198	9	US-10-721-793-71
27	119.8	62.4	198	9	US-10-721-793-159
28	119.8	62.4	198	9	US-10-721-793-163
29	119.8	62.4	322	9	US-10-721-793-65
30	119.8	62.4	322	9	US-10-721-793-69
31	119.8	62.4	323	9	US-10-721-793-157
32	119.8	62.4	323	9	US-10-721-793-139
33	118.2	61.6	195	9	US-10-721-793-155
34	118.2	61.6	198	9	US-10-721-793-153
35	118.2	61.6	319	9	US-10-721-793-137
36	118.2	61.6	323	9	US-10-721-793-83
37	116.6	60.7	195	9	US-10-721-793-81
38	116.6	60.7	274	9	US-10-721-793-97
39	116.6	60.7	323	9	US-10-721-793-167
40	115	59.9	195	9	US-10-721-793-171
41	115	59.9	195	9	US-10-721-793-165
42	115	59.9	323	9	US-10-721-793-169
43	113.4	59.1	195	9	US-10-721-793-23
44	113.4	59.1	195	9	US-10-721-793-143
45	113.4	59.1	195	9	US-10-721-793-143

ALIGNMENTS

RESULT 1

US-10-721-793-115
; Sequence 115, Application US/10721793
; Publication No. US20050065331A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrula Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/430,067
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 115
; LENGTH: 192
; TYPE: DNA
; ORGANISM: Centruroides elegans
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(192)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
US-10-721-793-115

Query Match 100.0%; Score 192; DB 9; Length 192;

Best Local Similarity 100.0%; Pred. No. 1.1e-53;

Matches 192; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AAAGACGGTTATCTGGTGACAAAGCGGCTGCAAAATACACTTGTGGATTTGGAGAA 60

Db 1 AAAGACGGTTATCTGGTGACAAAGCGGCTGCAAAATACACTTGTGGATTTGGAGAA 60

QY 61 AACAAATATGCAATAGGAATGCAATGGAAGCAGGAGGATTAATACGGCTATTGC 120

Db 61 AACAAATATGCAATAGGAATGCAATGGAAGCAGGAGGATTAATACGGCTATTGC 120

QY 121 TACGGATTTGGTGCTATTGGGAAGGATTTGTCGAGTAGTACCGACTTGGCCCTTTCT 180

Db 121 TACGGATTTGGTGCTATTGGGAAGGATTTGTCGAGTAGTACCGACTTGGCCCTTTCT 180

Qy 181 AATAAAGATGC 192
|
Db 181 AATAAAGATGC 192

RESULT 2

US-10-721-793-113
; Sequence 113, Application US/10721793
; Publication No. US20050065331A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10/721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 113
; LENGTH: 323
; TYPE: DNA
; ORGANISM: Centruroides elegans
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (5)..(265)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
; OTHER INFORMATION: In the mature peptide, the last Cys is amidated, and the last Gly
; OTHER INFORMATION: and the last 2 basic aminoacids are cut
; FEATURE:
; NAME/KEY: 3'UTR
; LOCATION: (269)..(323)
; OTHER INFORMATION:
; FEATURE:
; NAME/KEY: 5'UTR
; LOCATION: (1)..(4)
; OTHER INFORMATION:
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: (65)..()
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
; FEATURE:
; NAME/KEY: sig_peptide
; LOCATION: (5)..(64)
; OTHER INFORMATION:
US-10-721-793-113

Query Match 100.0%; Score 192; DB 9; Length 323;
Best Local Similarity 100.0%; Pred. No. 1.3e-53;
Matches 192; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 AAAGACGGTTATCTGGTGACACAAGACGGGCTGCAAATACACTTGTCTGGATATTCGGAGAA 60
Db 65 AAAGACGGTTATCTGGTGACACAAGACGGGCTGCAAATACACTTGTCTGGATATTCGGAGAA 124
Qy 61 AACAAATCTGCAATAGGGAATGCACATGGGAAGCACCGAGAGGTAATTACGGCTATTGC 120
Db 125 AACAAATCTGCAATAGGGAATGCACATGGGAAGCACCGAGAGGTAATTACGGCTATTGC 184
Qy 121 TACGGATTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
Db 185 TACGGATTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 244
Qy 181 AATAAAGATGC 192
|
Db 245 AATAAAGATGC 256

RESULT 3

US-10-721-793-119
; Sequence 119, Application US/10721793
; Publication No. US20050065331A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10/721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 119
; LENGTH: 192
; TYPE: DNA
; ORGANISM: Centruroides elegans
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(192)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
US-10-721-793-119

Query Match 99.2%; Score 190.4; DB 9; Length 192;
Best Local Similarity 99.5%; Pred. No. 3.6e-53;
Matches 191; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Qy 1 AAAGACGGTTATCTGGTGACACAAGACGGGCTGCAAATACACTTGTCTGGATATTCGGAGAA 60
Db 1 AAAGACGGTTATCTGGTGACACAAGACGGGCTGCAAATACACTTGTCTGGATATTCGGAGAA 60
Qy 61 AACAAATCTGCAATAGGGAATGCACATGGGAAGCACCGAGAGGTAATTACGGCTATTGC 120
Db 61 AACAAATCTGCAATAGGGAATGCACATGGGAAGCACCGAGAGGTAATTACGGCTATTGC 120
Qy 121 TACGGATTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
Db 121 TACGGATTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
Qy 181 AATAAAGATGC 192
|
Db 181 AATAAAGATGC 192

RESULT 4

US-10-721-793-117
; Sequence 117, Application US/10721793
; Publication No. US20050065331A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10/721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 117

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; LENGTH: 323
; TYPE: DNA
; ORGANISM: Centruroides elegans
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (5)..(265)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
; OTHER INFORMATION: In the mature peptide, the last Cys is amidated, and the last Gly
; OTHER INFORMATION: and the last 2 basic aminoacids are cut
; FEATURE:
; NAME/KEY: 3'UTR
; LOCATION: (269)..(323)
; OTHER INFORMATION:
; FEATURE:
; NAME/KEY: 5'UTR
; LOCATION: (1)..(4)
; OTHER INFORMATION:
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: (65)..(1)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
; FEATURE:
; NAME/KEY: sig_peptide
; LOCATION: (5)..(64)
; OTHER INFORMATION:
US-10-721-793-117

Query Match          99.2%; Score 190.4; DB 9; Length 323;
Best Local Similarity 99.5%; Pred. No. 4.5e-53;
Matches 191; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 AAAGACGGTTATCTGGTGACAAAGACGGGCTGCAATACACTTGTGGATATTGGAGAA 60
DB 65 AAAGACGGTTATCTGGTGACAAAGACGGGCTGCAATACACTTGTGGATATTGGAGAA 124
QY 61 AACAAATCTGCAATAGGGAATGCACATGGAAGACCCGAGGAGGTAATTACGGCTATTGC 120
DB 125 AACAAATCTGCAATAGGGAATGCACATGGAAGACCCGAGGAGGTAATTACGGCTATTGC 184
QY 121 TACGGATTTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTCT 180
DB 185 TACGGATTTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTCT 244
QY 181 AATAAAGATGC 192
DB 245 AATAAAGATGC 256

RESULT 5
US-10-721-793-151
; Sequence 151, Application US/10721793
; Publication No. US20050065331A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/430,067
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 151
; TYPE: DNA
; ORGANISM: Centruroides sculpturatus
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (5)..(262)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
; OTHER INFORMATION: In the mature peptide, the last Cys is amidated, and the last Gl
; OTHER INFORMATION: and the last 2 basic aminoacids are cut
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: (62)..(1)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
; FEATURE:
; NAME/KEY: sig_peptide
```

```
; NAME/KEY: CDS
; LOCATION: (1)..(192)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
; PUBLICATION INFORMATION:
; AUTHORS: Corona, M., Valdez-Cruz, N.A., Merino, E., Zurita, M. & Possani L.D.
; TITLE: Genes and peptides from the scorpion Centruroides sculpturatus Ewing,
; JOURNAL: Toxicon
; VOLUME: 39
; ISSUE: 12
; PAGES: 1893-1898
; DATE: 2001-12-01
; DATABASE ENTRY DATE:
; RELEVANT RESIDUES: (1)..(192)
US-10-721-793-151

Query Match          81.7%; Score 156.8; DB 9; Length 192;
Best Local Similarity 88.5%; Pred. No. 6.1e-42;
Matches 170; Conservative 0; Mismatches 22; Indels 0; Gaps 0;

QY 1 AAAGACGGTTATCTGGTGACAAAGACGGGCTGCAATACACTTGTGGATATTGGAGAA 60
DB 1 AAGACGGTTATCTAGTGGAAAGACGGGCTGCAAAAGAGACTTGCTACAAATTGGAGAA 60
QY 61 AACAAATCTGCAATAGGGAATGCACATGGAAGACCCGAGGAGGTAATTACGGCTATTGC 120
DB 61 AACGATTTTTCATATAGGGAATGCAAAATGGAAGCACATAGGAGGTAGTTATGGCTATTTC 120
QY 121 TACGGATTTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTCT 180
DB 121 TACGGATTTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTCT 180
QY 181 AATAAAGATGC 192
DB 181 AATAAAGATGC 192

RESULT 6
US-10-721-793-149
; Sequence 149, Application US/10721793
; Publication No. US20050065331A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/430,067
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 149
; LENGTH: 320
; TYPE: DNA
; ORGANISM: Centruroides sculpturatus
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (5)..(262)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
; OTHER INFORMATION: In the mature peptide, the last Cys is amidated, and the last Gl
; OTHER INFORMATION: and the last 2 basic aminoacids are cut
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: (62)..(1)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
; FEATURE:
; NAME/KEY: sig_peptide
```

```
; LOCATION: (5)..(61)
; OTHER INFORMATION:
; FEATURE:
; NAME/KEY: 3'UTR
; LOCATION: (266)..(320)
; OTHER INFORMATION:
; FEATURE:
; NAME/KEY: 5'UTR
; LOCATION: (1)..(4)
; OTHER INFORMATION:
; PUBLICATION INFORMATION:
; AUTHORS: Corona, M., Valdez-Cruz, N.A., Merino, E., Zurita, M. & Possani L.D.
; TITLE: Genes and peptides from the scorpion Centruroides sculpturatus Ewing,
; TITLE: that recognize Na+-channels
; JOURNAL: Toxicon
; VOLUME: 39
; ISSUE: 12
; PAGES: 1893-1898
; DATE: 2001-12-01
; DATABASE ENTRY DATE:
; RELEVANT RESIDUES: (5)..(262)
US-10-721-793-149

Query Match      81.7%; Score 156.8; DB 9; Length 320;
Best Local Similarity 88.5%; Pred. No. 7.6e-42;
Matches 170; Conservative 0; Mismatches 22; Indels 0; Gaps 0;

Qy 1 AAAGACGGTTATCTGTCGACAAAGACGGCGCTGCAAAATACACTTCTCGTGATATTGGAGAA 60
Db 62 AAGGACGGTTATCTAGTGGAAAGACGGCGCTGCAAAAGACTTGTCTACAAATTGGAGAA 121
Qy 61 AACAAATACCTGCAATAGGGAATGCACATGGAAGCAGCGAGGAGTAATTACGGCTATTGC 120
Db 122 AACGATTTTGCATAGGGAATGCAATATGGAAGCAGCATAGGAGGTAGTTATGGCTATTTC 181
Qy 121 TACGGATTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
Db 182 TACGGATTGGTGCTATTGCGAAGGATTGCCGATAGTACACGACTTGGCCCTTCCT 241
Qy 181 AATAAAGATGC 192
Db 242 AATAAAGATGC 253

RESULT 7
US-10-721-793-195
; Sequence 195, Application US/10721793
; Publication No. US20050065331A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10/721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/430,067
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 195
; LENGTH: 192
; TYPE: DNA
; ORGANISM: Centruroides sculpturatus
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (5)..(262)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
; OTHER INFORMATION: In the mature peptide, the last Cys is amidated, and the last Gly
; OTHER INFORMATION: and the last 2 basic aminoacids are cut
; FEATURE:
; NAME/KEY: 5'clip
; LOCATION: (266)..(320)
; OTHER INFORMATION:
; FEATURE:
; NAME/KEY: 5'UTR
; LOCATION: (1)..(4)
; OTHER INFORMATION:
; FEATURE:
; NAME/KEY: mat_peptide
```

```
; AUTHORS: Corona, M., Valdez-Cruz, N.A., Merino, E., Zurita, M. & Possani L.D.
; TITLE: Genes and peptides from the scorpion Centruroides sculpturatus Ewing,
; TITLE: that recognize Na+-channels
; JOURNAL: Toxicon
; VOLUME: 39
; ISSUE: 12
; PAGES: 1893-1898
; DATE: 2001-12-01
; DATABASE ENTRY DATE:
; RELEVANT RESIDUES: (1)..(192)
US-10-721-793-195

Query Match      80.8%; Score 155.2; DB 9; Length 192;
Best Local Similarity 88.0%; Pred. No. 2.1e-41;
Matches 169; Conservative 0; Mismatches 23; Indels 0; Gaps 0;

Qy 1 AAAGACGGTTATCTGTCGACAAAGACGGCGCTGCAAAATACACTTCTCGTGATATTGGAGAA 60
Db 1 AAGGAAGTTTATCTGTCGGACGTAAGGCTGCAAAAAAATTCCTGGAATTGGAGAT 60
Qy 61 AACAAATACCTGCAATAGGGAATGCACATGGAAGCAGCGAGGAGTAATTACGGCTATTGC 120
Db 61 AACGATTTTGCATAGGGAATGTAATATGGAAGCAGCATAGGAGGTAGTTACGGCTATTGC 120
Qy 121 TACGGATTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
Db 121 TACGGATTGGTGCTATTGCGAAGGATTGCCGATAGTACACGACTTGGCCCTTCCT 180
Qy 181 AATAAAGATGC 192
Db 181 AATAAAGATGC 192

RESULT 8
US-10-721-793-193
; Sequence 193, Application US/10721793
; Publication No. US20050065331A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10/721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/430,067
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 193
; LENGTH: 320
; TYPE: DNA
; ORGANISM: Centruroides sculpturatus
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (5)..(262)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
; OTHER INFORMATION: In the mature peptide, the last Cys is amidated, and the last Gly
; OTHER INFORMATION: and the last 2 basic aminoacids are cut
; FEATURE:
; NAME/KEY: 5'clip
; LOCATION: (266)..(320)
; OTHER INFORMATION:
; FEATURE:
; NAME/KEY: 5'UTR
; LOCATION: (1)..(4)
; OTHER INFORMATION:
; FEATURE:
; NAME/KEY: mat_peptide
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; LOCATION: (62)...()
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
; FEATURE:
; NAME/KEY: sig_peptide
; LOCATION: (5)...(61)
; OTHER INFORMATION:
; PUBLICATION INFORMATION:
; AUTHORS: Corona, M., Valdez-Cruz, N.A., Merino, E., Zurita, M. & Possani L.D.
; TITLE: Genes and peptides from the scorpion Centruroides sculpturatus Ewing,
; TITLE: that recognize Na+-channels
; JOURNAL: Toxicon
; VOLUME: 39
; ISSUE: 12
; PAGES: 1893-1898
; DATE: 2001-12-01
; DATABASE ENTRY DATE:
; RELEVANT RESIDUES: (5)...(262)
US-10-721-793-193

Query Match      80.8%; Score 155.2; DB 9; Length 320;
Best Local Similarity 88.0%; Pred. No. 2.6e-41;
Matches 169; Conservative 0; Mismatches 23; Indels 0; Gaps 0;

QY 1 AAAGACGGTTATCTGGTGACAAAGCGGCTGCAAAATACACTTGTGGATATTGGAGAA 60
DB 62 AAGGAAGGTTATCTGGTGACCTAAAGGCTGCAAAAAAATCTGGAAATGGAGAT 121
QY 61 AACAAATCTGCAATAGGAAATGCACATGAAGACCGGAGGAGTAATTACGGCTATTGC 120
DB 122 AAGGATTATGCAATAGGAAATGTAATGAAGCATAGGAGGTAGTTACGGCTATTGC 181
QY 121 TACGGATTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB 182 TACGGATTGGTGCTATTGCGAAGGATTGTCGATAGTACACAGACTTGGCCCTTTCT 241
QY 181 AATAAAGATGC 192
DB 242 AATAAAGATGC 253

RESULT 9
US-10-721-793-47
; Sequence 47, Application US/10721793
; Publication No. US2005006531A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/430,067
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 47
; LENGTH: 192
; TYPE: DNA
; ORGANISM: Centruroides exilicauda
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(192)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
; OTHER INFORMATION: In the mature peptide, the last Cys is amidated, and the last Gl
; OTHER INFORMATION: and the last 2 basic aminoacids are cut
; FEATURE:
; NAME/KEY: 3'UTR
; LOCATION: (205)...(258)
; OTHER INFORMATION:
US-10-721-793-47

Query Match      79.2%; Score 152; DB 9; Length 258;
Best Local Similarity 87.0%; Pred. No. 2.8e-40;
Matches 167; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

QY 1 AAAGACGGTTATCTGGTGACAAAGCGGCTGCAAAATACACTTGTGGATATTGGAGAA 60
DB 1 AAGGACGGTTATCTGGTGAGGTGTCAGGGCTGCAAAAAAGTCTTGTCTATAAATTTGGAGAA 60
QY 61 AACAAATCTGCAATAGGAAATGCACATGAAGACCGGAGGAGTAATTACGGCTATTGC 120
DB 61 AACAAATCTGCAATAGGAAATGCAAAATGAAGACCGGAGGAGTAGTTACGGCTATTGC 120
QY 121 TACGGATTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB 121 TATTTTTTTGGTGCTATTGCGAAGGATTGCGGAAAGTACACCGACTTGGCCCTTTCT 180
QY 181 AATAAAGATGC 192
DB 181 AATAAATCATGC 192
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QY 1 AAAGACGGTTATCTGGTGACAAAGCGGCTGCAAAATACACTTGTGGATATTGGAGAA 60
DB 1 AAGGACGGTTATCTGGTGAGGTGTCAGGGCTGCAAAAAAGTCTTGTCTATAAATTTGGAGAA 60
QY 61 AACAAATCTGCAATAGGAAATGCACATGAAGACCGGAGGAGTAATTACGGCTATTGC 120
DB 61 AACAAATCTGCAATAGGAAATGCAAAATGAAGACCGGAGGAGTAGTTACGGCTATTGC 120
QY 121 TACGGATTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB 121 TATTTTTTTGGTGCTATTGCGAAGGATTGCGGAAAGTACACCGACTTGGCCCTTTCT 180
QY 181 AATAAAGATGC 192
DB 181 AATAAATCATGC 192

RESULT 10
US-10-721-793-45
; Sequence 45, Application US/10721793
; Publication No. US2005006531A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/430,067
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 45
; LENGTH: 258
; TYPE: DNA
; ORGANISM: Centruroides exilicauda
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(204)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
; OTHER INFORMATION: In the mature peptide, the last Cys is amidated, and the last Gl
; OTHER INFORMATION: and the last 2 basic aminoacids are cut
; FEATURE:
; NAME/KEY: 3'UTR
; LOCATION: (205)...(258)
; OTHER INFORMATION:
US-10-721-793-45

Query Match      79.2%; Score 152; DB 9; Length 258;
Best Local Similarity 87.0%; Pred. No. 2.8e-40;
Matches 167; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

QY 1 AAAGACGGTTATCTGGTGACAAAGCGGCTGCAAAATACACTTGTGGATATTGGAGAA 60
DB 1 AAGGACGGTTATCTGGTGAGGTGTCAGGGCTGCAAAAAAGTCTTGTCTATAAATTTGGAGAA 60
QY 61 AACAAATCTGCAATAGGAAATGCACATGAAGACCGGAGGAGTAATTACGGCTATTGC 120
DB 61 AACAAATCTGCAATAGGAAATGCAAAATGAAGACCGGAGGAGTAGTTACGGCTATTGC 120
QY 121 TACGGATTGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB 121 TATTTTTTTGGTGCTATTGCGAAGGATTGCGGAAAGTACACCGACTTGGCCCTTTCT 180
QY 181 AATAAAGATGC 192
DB 181 AATAAATCATGC 192
```


Db 1 AAGGAGGTTATCTGCTGAACAAAGACACAGGCTGTAAATACAACTGCTTGATATTGGGA 60
QY 58 GAAACAAATATCTGCAATAGGAATGCACATGCGAAGCAGGAGGAGTAATTACGGCTAT 117
Db 61 GAAACAAATATCTGCGATATGGAATGCAAGCGAAGAACCAAGGAGGTAGTTACGGCTAT 120
QY 118 TGCTACGGATTGGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTT 177
Db 121 TGCTACGGATTGGGTGCTATTGTAAGGATTGTCGATAGTACACCGACTTGGCCCTT 180
QY 178 TCTAATAAAAGATGC 192
Db 181 CCTAATAAAACATGC 195

RESULT 14
US-10-721-793-89
; Sequence 89, Application US/10721793
; Publication No. US20050065331A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10/721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/430,067
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 89
; LENGTH: 323
; TYPE: DNA
; ORGANISM: Centruroides noxius
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (5)..(265)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
; OTHER INFORMATION: In the mature peptide, the last Ser is amidated, and the last Gly
; OTHER INFORMATION: and the last basic aminoacid are cut
; FEATURE:
; NAME/KEY: 3'UTR
; LOCATION: (269)..(323)
; OTHER INFORMATION:
; FEATURE:
; NAME/KEY: 5'UTR
; LOCATION: (1)..(4)
; OTHER INFORMATION:
; NAME/KEY: mat_peptide
; LOCATION: (62)..()
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
; FEATURE:
; NAME/KEY: sig_peptide
; LOCATION: (5)..(61)
; OTHER INFORMATION:
US-10-721-793-89

Query Match 75.7%; Score 145.4; DB 9; Length 323;
Best Local Similarity 87.7%; Pred. No. 4.9e-38;
Matches 171; Conservative 0; Mismatches 21; Indels 3; Gaps 1;
QY 1 AAGAGCGTTATCTGCTGAACAAAGACACAGGCTGTAAATACAACTGCTTGATATTGGGA 57
Db 62 AAGGAGGTTATCTGCTGAACAAAGACACAGGCTGTAAATACAACTGCTTGATATTGGGA 121
QY 58 GAAACAAATATCTGCAATAGGAATGCACATGCGAAGCAGGAGGTAATTACGGCTAT 117

Db 122 GAAACAAATATCTGCGATATGGAATGCAAGCGAAGAACCAAGGAGGTAGTTACGGCTAT 181
QY 118 TGCTACGGATTGGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTT 177
Db 182 TGCTACGGATTGGGTGCTATTGTAAGGATTGTCGATAGTACACCGACTTGGCCCTT 241
QY 178 TCTAATAAAAGATGC 192
Db 242 CCTAATAAAACATGC 256

RESULT 15
US-10-721-793-111
; Sequence 111, Application US/10721793
; Publication No. US20050065331A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
; FILE REFERENCE: 2099.0070001
; CURRENT APPLICATION NUMBER: US/10/721,793
; CURRENT FILING DATE: 2003-11-26
; PRIOR APPLICATION NUMBER: US 60/430,067
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 111
; LENGTH: 189
; TYPE: DNA
; ORGANISM: Centruroides elegans
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(189)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
US-10-721-793-111

Query Match 66.0%; Score 126.8; DB 9; Length 189;
Best Local Similarity 82.8%; Pred. No. 6.4e-32;
Matches 159; Conservative 0; Mismatches 27; Indels 6; Gaps 1;
QY 1 AAGAGCGTTATCTGCTGAACAAAGACACAGGCTGTAAATACAACTGCTTGATATTGGGAGAA 60
Db 4 AAGGAGGTTATCTGCTGAACAAAGACACAGGCTGTAAATACAACTGCTTGATATTGGGAGAA 63
QY 61 AACAATATCTGCAATAGGAATGCACATGGAAGCAGGAGGTAATTACGGCTATTGC 120
Db 64 AACAATATCTGCAATAGGAATGCACATGGAAGGAGGTAATTACGGCTATTGC 117
QY 121 TAGGATTTGGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTCT 180
Db 118 TAGCTTTTGGGTGCTATTGCGAAGGATTACCGAAGCGGTACTGACCTGGCCCTTCT 177
QY 181 AATAAAAGATGC 192
Db 178 GATAAAACATGC 189

Search completed: January 22, 2006, 01:12:50
Job time : 2178 secs

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GenCore version 5.1.6
Copyright (c) 1993 - 2006 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: January 21, 2006, 21:29:01 ; Search time 8943 Seconds
(without alignments)
1004.486 Million cell updates/sec

Title: US-10-721-793-115
Perfect score: 192
Sequence: 1 aaagcgggtatctgggtga.....ccctttctaataaagatgc 192

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 41078325 seqs, 23393541228 residues
Total number of hits satisfying chosen parameters: 82156650

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : EST:
1: gb_est1:
2: gb_est2:
3: gb_est3:
4: gb_hic:
5: gb_est4:
6: gb_est5:
7: gb_est6:
8: gb_est7:
9: gb_gss1:
10: gb_gss2:
11: gb_gss3:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	36.8	19.2	582	3	BP248044
2	35.2	18.3	656	2	BF640569
3	35	18.2	982	10	CNS00JOE
4	34.8	18.1	820	1	AU119061
5	34.8	18.1	849	8	DN839051
6	34.6	18.0	340	6	CF503342
7	34.6	18.0	918	5	BUS52525
8	34.4	17.9	1080	8	DR738811
9	34.2	17.8	459	11	CR899083
10	34.2	17.8	450	5	BQ864839
11	34.2	17.8	893	5	BUS43170
12	34	17.7	708	4	AY440472
13	33.8	17.6	748	8	DR423779
14	33.6	17.5	377	8	N75948
15	33.6	17.5	474	8	N57766
16	33.6	17.5	581	9	AQ725129
17	33.4	17.4	978	10	CL041476
18	33.4	17.4	1213	10	CL644174
19	33.4	17.4	1226	1	AG181747
20	33.2	17.3	352	1	A1468868
21	33.2	17.3	619	1	AA293053
22	33	17.2	336	2	BF767499

c	23	33	17.2	659	9	CC453499	CC453499
	24	33	17.2	761	9	CC847597	CC847597
	25	33	17.2	838	10	BX970645	BX970645
c	26	33	17.2	903	5	BX436789	BX436789
	27	33	17.2	937	2	BG742646	BG742646
c	28	33	17.2	1013	5	BX332631	BX332631
	29	33	17.2	1013	5	BX332631	BX332631
c	30	32.8	17.1	246	2	BZ38563	BZ38563
	31	32.8	17.1	631	2	BE901242	BE901242
	32	32.8	17.1	777	2	BE902136	BE902136
	33	32.6	17.0	951	2	BE742069	BE742069
	34	32.6	17.0	559	6	CF722903	CF722903
	35	32.6	17.0	564	6	CB285819	CB285819
	36	32.6	17.0	596	1	AJ657416	AJ657416
c	37	32.6	17.0	619	8	DN106755	DN106755
	38	32.6	17.0	620	8	DN107120	DN107120
c	39	32.6	17.0	651	1	AJ939538	AJ939538
	40	32.6	17.0	657	6	CF176758	CF176758
	41	32.6	17.0	658	6	CF787263	CF787263
c	42	32.6	17.0	662	6	CB478435	CB478435
c	43	32.6	17.0	683	6	CF787874	CF787874
c	44	32.6	17.0	695	6	CF175425	CF175425
c	45	32.6	17.0	706	9	BZ015309	BZ015309
				822	2	B1185001	B1185001

ALIGNMENTS

RESULT 1
BP248044
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
REFERENCE
AUTHORS
TITLE
JOURNAL
PUBMED
COMMENT
BP248044
582 bp
Sugano cdna library, embryo kidney Homo sapiens
HKR09944, mRNA sequence.
BP248044.1
GI:52130323
EST.
Homo sapiens (human)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 582)
Suzuki,Y., Yamashita,R., Shirota,M., Sakakibara,Y., Chiba,J., Mizushima-Sugano,J., Nakai,K. and Sugano,S.
Sequence comparison of human and mouse genes reveals a homologous block structure in the promoter regions
Genome Res. 14 (9), 1711-1718 (2004)
15342556
Contact: Yutaka Suzuki
Department of Virology
Institute of Medical Science, University of Tokyo
4-6-1, Shirokanedai, Minatoku, Tokyo 108-8639, Japan
Email: ysuzuki@ims.u-tokyo.ac.jp.
Location/Qualifiers
1. .582
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="HKR09944"
/tissue_type="kidney"
/cell_line="293"
/dev_stage="embryo"
/clone_lib="Sugano cdna library, embryo kidney"

FEATURES
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Query Match 19.2%; Score 36.8; DB 3; Length 582;
Best Local Similarity 50.0%; Pred. No. 2;
Matches 92; Conservative 0; Mismatches 92; Indels 0; Gaps 0;
QY 1 AAAGCGGTATCTGGTGCACAGCGGCTGCAATACACTTGTGGATATTGGAGAA 60
DB 151 AAGAACTGTGATCTTCCTATTAGTGGATTACATGAGGATTGATAGATTAGGAAAA 210

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QY 61 AACAACTACTGCAATAGGAATGCACATGGAGACCGAGGAGGTAATTACGGCTATTGC 120
Db ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
211 ACCATATATACAATTTAAAGAATGCAGATGGAGGCCAGATAGGTTGGTTCGCCGAAGAC 270
QY 121 TACGGATTGGGTGCTATTGCGAGGAGTTGTCCGATAGTACACCGACTTGGCCCTTTCT 180
Db ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
271 CTGGGAARACCAATTAAACGGAATGATCTCATAGTAGATATATATTCATGCGCCTTTT 330
QY 181 AATA 184
Db ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
331 CAAA 334

RESULT 2
BF640569 656 bp mRNA linear EST 19-DEC-2000
LOCUS NF031A09IN1F1068 Insect herbivory Medicago truncatula cDNA clone
DEFINITION NF031A09IN 5', mRNA sequence.
ACCESSION BF640569
VERSION BF640569
KEYWORDS EST.
SOURCE Medicago truncatula (barrel medic)
ORGANISM Medicago truncatula
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicotyledons;
rosids; eurosids I; Fabales; Fabaceae; Papilionoideae; Trifolieae;
Medicago.
REFERENCE 1 (bases 1 to 656)
AUTHORS Korth,K., Scott,A.D., Harris,A.R., Gonzales,R.A., Bell,C.J.,
Flores,H.R., Inman,J.T., Weller,J.W. and May,G.D.
TITLE Expressed Sequence Tags from the Samuel Roberts Noble Foundation
JOURNAL Medicago truncatula insect herbivory library
COMMENT Unpublished (2000)
Contact: Korth K
Dept. of Plant Pathology
University of Arkansas
217 Plant Science Building, Fayetteville, AR 72701, USA
Tel: 501 575 5191
Fax: 501 575 7601
Email: kkorth@comp.uark.edu
Insert Length: 656 Std Error: 0.00
Plate: 031 Row: A Column: 09
Seq primer: TCACACGGAACACGCTATGAC.

FEATURES
source
location/Qualifiers
1..656
/organism="Medicago truncatula"
/mol_type="mRNA"
/db_xref="taxon:3880"
/clone="NF031A09IN"
/tissue_type="local and systemic leaves"
/dev_stages="mature"
/clone_libs="Insect herbivory"
/note="Vector: Lambda Zap; Library was produced from fully
expanded M. truncatula leaves of plants fed upon by
Spodoptera exigua (beet armyworm) for 24 hours. Systemic
(undamaged leaves from injured plants) and wounded leaves
were harvested and pooled."

ORIGIN
Query Match 18.3%; Score 35.2; DB 2; Length 656;
Best Local Similarity 52.0%; Pred. No. 6.5;
Matches 79; Conservative 0; Mismatches 73; Indels 0; Gaps 0;

QY 7 GGTATCTCTGGTGGCAACGCGGTGCAATATACACTTCTCGATATTTGGGAGAAAACAAA 66
Db ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
464 GGTAAATTGGTGACACAGCTGGTGCAAAACCAATATCTTAGTTGGTGATGCTCAAC 523
QY 67 TACTGCAATAGGGAATGCACATGGAGCACCAGAGAGTAATTACGGCTATTGTCAGGA 126
Db ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
524 TACATCTCTTCTTCTGCTCATGGCTTAATCAAGAGGGAATGAAGTTATTGACGCTGG 583
QY 127 TTTGGGTCTATTGCGAGGAGTTGTCGATAG 158
Db ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
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Db 584 AATGAATCCTGTCCAAATTTGCTCGTGGGATTG 615
CNS003JOE 982 bp DNA linear GSS 03-JUN-1999
Drosophila melanogaster genome survey sequence TET3 end of BAC:
BACR38N08 of RPCI-98 library from Drosophila melanogaster (fruit
fly), genomic survey sequence.
AL076634
AL076634.1 GI:4956111
GSS.
Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 982)
Genoscope.
Direct Submission
Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
- Web : www.genoscope.cns.fr)
Determination of this BAC-end sequence was carried out as part of a
collaboration with the Berkeley Drosophila Genome Project (BDGP).
The BDGP is constructing a physical map of the Drosophila
melanogaster genome using these BACs. For further information
please see http://www.fruitfly.org The BDGP Drosophila
melanogaster BAC library was prepared by Kazutoyo Osoegawa and
Aaron Mamoser in Pieter de Jong's laboratory in the Department of
Cancer Genetics at the Roswell Park Cancer Institute in Buffalo,
NY. The library is named RPCI-98 and was constructed by partial
EcoRI digestion of Drosophila DNA provided by the BDGP from the
isogenic strain Y2; cn bw sp, the same strain used for the BDGP's
P1 and EST libraries. A more detailed description of the library
and how to order individual BAC clones, the entire library, or
filters for hybridization from the BACPAC Resource Center can be
found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.

FEATURES
source
location/Qualifiers
1..982
/organism="Drosophila melanogaster"
/mol_type="genomic DNA"
/db_xref="taxon:7227"
/clone="BACR38N08"
/clone_lib="RPCI-98"
/note="end : TET3"

ORIGIN
Query Match 18.2%; Score 35; DB 10; Length 982;
Best Local Similarity 32.0%; Pred. No. 8.1;
Matches 49; Conservative 42; Mismatches 62; Indels 0; Gaps 0;

QY 37 TACATCTGCTGGATATTGGGAGAAAACAAATATCTGCAATAGGGAATGCACATGGAAGCAC 96
Db ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
714 KATWTWTTTGGWAAATTTGTGCGCAAAAMHAGGTGAAAACAGSTGCGAAGVVARWAAA 655
QY 97 CGAGGAGGTAAATACGGCTATTGCTACGGAATTTGGGTGCTATTCCGAAGGATTTCCGAT 156
Db ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
654 ARCGSGGAAAAAAYGRCGWMSTCWTGCTTTCTYKTYTNGTGYMAAAAAAMWMAAMW 595
QY 157 AGTACACCGACTTGGCCCTTTCTTAATAAAGA 189
Db ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
594 TTVAAMAMMMWTTTSAVACATWMAAAAAWACA 562

RESULT 4
AUI19061 820 bp mRNA linear EST 01-AUG-2002
LOCUS AUI19061 HEMBA1 Homo sapiens cDNA clone HEMBA1004961 5', mRNA
DEFINITION AUI19061
sequence.
ACCESSION AUI19061
VERSION AUI19061.1 GI:10934296
KEYWORDS EST.
```

SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
 Homnidae; Homo.

REFERENCE 1 (bases 1 to 820)
 AUTHORS Ota, T., Nishikawa, T., Suzuki, Y., Ishii, S., Saito, K., Kawai, Y., Yamamoto, J., Wakamatsu, A., Nakamura, Y., Nagai, T., Sugano, S. and Isogai, T.

TITLE HRI human cDNA project
 JOURNAL Unpublished (2000)
 COMMENT Contact: Takao Isogai
 Genomics Laboratory
 Helix Research Institute
 1532-3 Yana, Kisarazu, Chiba 292-0812, Japan
 Tel: 81-438-52-3975
 Fax: 81-438-52-3986
 Email: genomics@hri.co.jp
 HRI human cDNA project; 5'- & 3'-end one pass sequencing; Helix
 Research Institute; cDNA library construction; Department of
 Virology, Institute of Medical Science, University of Tokyo, and
 Helix Research Institute.

FEATURES
 source
 1..820
 Location/Qualifiers
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="HEMBA1004961"
 /tissue type="whole embryo, mainly head"
 /dev stage="embryo, 10 weeks"
 /clone_lib="HEMBA1"
 /note="Vector: pME18SFL3"

ORIGIN
 Query Match 18.1%; Score 34.8; DB 1; Length 820;
 Best Local Similarity 53.3%; Pred. No. 9;
 Matches 72; Conservative 0; Mismatches 63; Indels 0; Gaps 0;

QY 42 TTGCTGGATATTGGGAGAAACAAATCTGCAATAGGGAATGCATGGAAGCACCAGG 101
 Db TTGCTGGATAGGAGATCACACAGATGGAGTANTAGCTTGTCTGGACTAATAGGGG 668

QY 102 AGTAAATTACGGTATTGCTACGGATTGGGTCTATTGCGAGGATTGCCGATAGTAC 161
 Db ACTTATGTACAGCATTTGGGAAGGATGTAAGTAAATTAGTAGAAGCTAGGCCAATGATCC 728

QY 162 ACCGACTTGGCCCT 176
 Db CATGAATTGGTAAT 743

RESULT 5
 DN839051
 LOCUS DN839051 849 bp mRNA linear EST 09-JUL-2005
 DEFINITION Smoc-1.05 A23_T7 Selaginella moellendorffii cDNA library Smoc-1
 Selaginella moellendorffii cDNA 5, mRNA sequence.

ACCESSION DN839051
 VERSION DN839051.1 GI:70670474
 KEYWORDS EST.
 SOURCE Selaginella moellendorffii
 ORGANISM Selaginella moellendorffii
 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
 Lycopodiophyta; Isoetopsida; Selaginellales; Selaginellaceae;
 Selaginella.

REFERENCE 1 (bases 1 to 849)
 AUTHORS Weng, J.-X., Tanurdic, M. and Chapple, C.
 TITLE Functional analysis and comparative genomics of expressed sequence
 tags from the lycophyte Selaginella moellendorffii
 JOURNAL BMC Genomics 6 (1), 85 (2005)
 PUBMED 15938755
 COMMENT Contact: Chapple, C.
 Department of Biochemistry
 Purdue University

West Lafayette, IN 47907-1153, USA
 Tel: 765 494 0494
 Fax: 765 496 7213
 Email: chapple@purdue.edu
 PCR Primers
 FORWARD: T7 Forward
 BACKWARD: M13 Backward
 Plate: Smoc-1.05 row: A column: 23
 Seq primer: T7 Forward.

FEATURES
 source
 1..849
 Location/Qualifiers
 /organism="Selaginella moellendorffii"
 /mol_type="mRNA"
 /db_xref="taxon:88036"
 /tissue type="whole plant"
 /clone_lib="Selaginella moellendorffii cDNA library
 Smoc-1"
 /note="Vector: pDNR-LIB; Site 1: Sfil; Site 2: Sfil;
 Library construction was performed according to
 manufacture's (CLONTECH, Palo Alto, CA) recommended
 protocol for Creator Smart cDNA Library Construction Kit."

ORIGIN
 Query Match 18.1%; Score 34.8; DB 8; Length 849;
 Best Local Similarity 57.3%; Pred. No. 9.1;
 Matches 63; Conservative 0; Mismatches 47; Indels 0; Gaps 0;

QY 8 GTTACTCTGGTGCACAGCGGCTGCAATACACTTGTGGATATTGGGAGAAACAAAT 67
 Db GTTAACTGGACGACCGAGGATCATGTCGCCAGGAGGCGATATGGAGCGAGAAAG 435

QY 68 ACTGCAATAGGAATGCATCGAAGCACCGAGGAGGTAATTAACGGCTAT 117
 Db AGTCTCTTTGAAATGCCCGGAATTAATGAGTGGAAATTAACGGCTAT 485

RESULT 6
 CF503342/c
 LOCUS CF503342 340 bp mRNA linear EST 30-APR-2004
 DEFINITION MF1-0018U-V031-H07-U-B MF1-0018 Schistosoma mansoni cDNA clone
 MF1-0018U-V031-H07-B similar to putative retrotransposon, mRNA
 sequence.

ACCESSION CF503342
 VERSION CF503342.1 GI:46896368
 KEYWORDS EST.
 SOURCE Schistosoma mansoni
 ORGANISM Schistosoma mansoni
 Eukaryota; Metazoa; Platyhelminthes; Trematoda; Digenea;
 Strigeidida; Schistosomatidae; Schistosomatidae; Schistosoma.
 1 (bases 1 to 340)

REFERENCE DeMarco, R., Kowaltowski, A.T., Machado, A.A., Soares, M.B.,
 Cargioni, C., Kawano, T., Rodrigues, V., Madeira, A.M.B.N.,
 Wilson, R.A., Menck, C.F.M., Setubal, M.C., Dias-Neto, E., Leite, L.C.C.
 and Verjovski-Almeida, S.
 TITLE Sac1, -2 and -3 and Perere, four novel retrotransposons with high
 transcriptional activities from the human parasite Schistosoma
 mansoni
 JOURNAL J. Virol. 78 (6), 2967-2978 (2004)
 PUBMED 14990715
 COMMENT Contact: Dr. Sergio Verjovski-Almeida
 Departamento de Bioquímica
 Instituto de Química - Universidade de São Paulo
 Av. Prof. Lineu Prestes 748 sala 1200, 05508-900 São Paulo - SP,
 Brasil
 Tel: +55-11-3091-2173
 Fax: +55-11-3091-2186
 Email: verjov@iq.usp.br
 This sequence was derived from the FAPESP Schistosoma mansoni EST
 Genome Project. All sequences in the project were assembled and
 annotated. This entry and all the assembled sequences can be seen
 in the following URL <http://bioinfo.iq.usp.br/schisto/>
 Plate: MF1-0018U-V031 row: 7 column: H.

FEATURES
 Location/Qualifiers

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source
1. 340
/organism="Schistosoma mansoni"
/mol_type="mRNA"
/db_xref="taxon:6183"
/clone="MF1-0018U-V031-H07.B"
/sex="female"
/dev_stage="adult"
/lab_host="Mesocricetus auratus"
/clone_lib="MF1-0018"
/note="Vector: SureClone"

ORIGIN
Query Match      18.0%; Score 34.6; DB 6; Length 340;
Best Local Similarity 54.3%; Pred. No. 8.7;
Matches 70; Conservative 0; Mismatches 59; Indels 0; Gaps 0;

Qy 32 GCAATACACTTGGTGGATATTGGGAGAAAAACAATACTGCAATAGGGAATGCACATGGA 91
Db 177 GTAACCTCCACTTCTGGATAAAATCTGAATTCAGCTATTGAATTAGCAATAGAAATCCGGA 118

Qy 92 AGCACCGAGGAGGTAAATACGGCTATTGCTACGGAATTTGGGTGCTATTGCGAAGGATTGT 151
Db 117 GTCATAGAGGAATTAGACACATCAGTTCTTGAGGATATCGACATATTTTGGACTAATAAT 58

Qy 152 CCGATAGTA 160
Db 57 TCGATAGGA 49

RESULT 7
LOCUS BU552525
DEFINITION BUS52525 918 bp mRNA linear EST 16-SEP-2002
5', mRNA sequence.
ACCESSION BU552525
VERSION BU552525.1 GI:22902797
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
Hominidae; Homo.
REFERENCE 1 (bases 1 to 918)
AUTHORS NIH-MGC http://mgc.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: DCTD/DRP
cDNA Library Preparation: Rubin Laboratory
cDNA Sequencing Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM2774 row: k column: 06
High quality sequence stop: 736.
Location/Qualifiers
1. 918
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6576318"
/tissue_type="carcinoma, cell line"
/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH MGC 40"
/note="Organ: prostate; Vector: pOTB7; Site_1: XhoI;
Site_2: EcoRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/XhoI sites using the
following 5' adaptor: GGCACGAG(G). Library constructed by
Ling Hong in the laboratory of Gerald M. Rubin (University
of California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).

Note: this is a NIH_MGC Library."

ORIGIN
Query Match      18.0%; Score 34.6; DB 5; Length 918;
Best Local Similarity 55.4%; Pred. No. 11;
Matches 67; Conservative 0; Mismatches 54; Indels 0; Gaps 0;

Qy 42 TTGCTGGATATTGGGAGAAACAATACTGCAATAGGGAATGCACATGGAAGCACCAGG 101
Db 644 TTGCTGGAGATGAGGATCACACAGATGAGTAGTCTTGCTGGTGGACTAATAGGGG 703

Qy 102 AGGTAATTTACGGCTATTGCTACGATTTGGGTGCTATTGCCAAGGATTTGCCGATAGTAC 161
Db 704 ACTTATGTACAGCATTTGGGAGGATGTACTTGAATTAGTAGAAGCTAGGCCAATGATCC 763

Qy 162 A 162
Db 764 A 764

RESULT 8
LOCUS DR738811/c
DEFINITION FGAS084028 Triticum aestivum FGAS: Library 6 CAP GATE 1 Triticum
aestivum cDNA, mRNA sequence.
ACCESSION DR738811
VERSION DR738811.1 GI:70966654
KEYWORDS EST.
SOURCE Triticum aestivum (bread wheat)
ORGANISM Triticum aestivum
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticeae; Triticum.
REFERENCE 1 (bases 1 to 1080)
AUTHORS Allard, F., Crosby, W.L., Danyluk, J., Eudes, F., Frick, M., Gaudet, D.,
Genswein, B., Graf, R., Gulick, P., Hrycan, L.D., Laroche, A.,
Links, M.G., McCarthy, E.L., Monroy, A., Muzak, I., Nilsson, D.,
Penniket, C., Roach, J.L. and Sarhan, F.
Functional Genomics of Abiotic Stress in Wheat and Canola Crops
Unpublished (2003)
COMMENT Contact: Patrick Gulick
Plant Molecular Biology
Concordia University, Department of Biology
7141 Sherbrooke St. West, Montreal, Quebec H4B 1R6, Canada
Tel: 514 848 2424 Ext 3407
Fax: 514 848 2881
Email: pgulick@alcor.concordia.ca
This sequence is the direct result of the Base calling software
Phred (default parameters). It is the raw base calls. To aid in the
identification of the high quality insert the software Lucy
(default parameters) has been run on this sequence. Lucy identified
the region [105,489].
Plate: L6B202 row: N column: 17.
Location/Qualifiers
1..1080
/organism="Triticum aestivum"
/mol_type="mRNA"
/db_xref="taxon:4565"
/clone_lib="Triticum aestivum FGAS: Library 6 CAP GATE 1"
/note="Organ: Crown and leaf; Vector: pCMV.SPORT6; Crown
(50%) and leaf (50%) tissues from wheat cultivar Norstar
after short exposure times to low temperature in the light
and in the dark. 12 mRNA populations were combined before
constructing the library. The first 6 populations: After 7
days of growth at 20C from wheat cultivar Norstar after
short exposure times to low temperature in the light and
in the dark. 12 mRNA populations were combined before
constructing the library. The first 6 populations: After 7
days of growth at 20, wheat plants were transferred to 4C
in the light. 1cm crown sections and green leaf tissue were
separately harvested after 1, 3, and 6 hours of low
temperature exposure. The last 6 populations: After 7 days
of growth at 20C, wheat plants were transferred to 4C in

```

the dark. 1cm crown sections and green leaf tissue were separately harvested after 1, 3, and 6 hours of low temperature exposure. First strand synthesis in this library was done in the presence of methylated dCTP thereby protecting from internal cleavage with NotI. In addition, this library used a primer for second strand synthesis that annealed to an artificial sequence (RNA oligo) added before first strand synthesis. Therefore when sequences from EST generated from this library will be masked for vector and adaptor sequences, an additional masking step will have to be included to mask this RNA oligo that is common to all clones (sequence CCACTGACGACACAGACACTGACATGGCTACAGGATCTAGAA).

THE UNIVERSITY OF CHICAGO

```
Query Match      17.9%; Score 34.4; DB 8; Length 1080;
Best Local Similarity 60.9%; Pred. No. 13;
Matches 56; Conservative 0; Mismatches 36; Indels 0; Gaps 0;
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15 GGTGGACAAGACGGGCTGCAAAATACACTTGCTGGATATTGGGAGAAAACAAATACTGCAA 74

359 GGGGTGCA TGGCGGTGTCCA TCTGCAGGGGCTTGT TGTGTGAGGAGGCAGACTGCAA 30

75 TAGGGAATGCACATGGAAGCACCGAGGAGTA 106

299 CAGACAAACATCTGGAGTCTCGAGGATATA 268

Result	Accession	Length	Method	Date
RESULT 9	CR899083/c	459 bp	DNA	GSS 23-NOV-2004
OCUS	CR899083			
EPINITION	Sus scrofa BES, genomic survey sequence.			

CR899083.1 GI:56223580
GSS; Bac-end sequence BES; Genome Survey Sequence.
Sus scrofa (pig)

ORGANISM **Sus scrofa**
Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
Sus.

REFERENCE 1 (bases 1 to 459)

AUTHORS	Rogel-Gaillard, C., Bourgeaux, N., Billault, A., Valman, M. and Chardon, P.
TITLE	Construction of a swine BAC library: application to the characterization and mapping of porcine type C endoviral elements
JOURNAL	Cytogenet. Cell Genet. 85 (3-4), 205-211 (1999)

PUBMED	REFERENCE	AUTHORS	TITLE
10449899	2 (bases 1 to 459)	Chardon, P.; Iannuccielli, N., Roig, A., Dossat, C., Demars, J., Rogel-Gaillard, C., Roy, A., Schibler, L. and Milan, D.	A physical map of the swine genome

JOURNAL REFERENCE: Unpublished
3 (bases 1 to 459)
Genoscope.
Direct Submission
TITLE: Submitted (18-NOV-2004)
JOURNAL: Genoscope - Centre National de Sequencage :

BP 191 91006 EVRY cedex - FRANCE (E-mail : segref@genoscope.cns.fr)
- Web : www.genoscope.cns.fr)
Location/Qualifiers

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source
1. .459
/organism="Sus scrofa"
/mol_type="genomic DNA"
/strain="Large White"
/db_xref="taxon:9823"
/clone="BI0360D02"

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/sex="male"  
/cell_type="fibroblast"  
/clone_lib="SBAB"  
/notes="Genoscope sequence ID : IH0AAA26AA06FM1"
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Query Match 17.8%; Score 34.2; DB 11; Length 459;
Best Local Similarity 62.1%; Pred. No. 12;

	Matches	54;	Conservative	0;	Mismatches	33;	Indels	0;	Gaps	0;
QY	2	AGACGGTTATCTGTTGGACAGACGGGTGCAATACACTTCTGGATATTCTGGGAGAAA	61							
Db	455	AAAGTGGGTAACTGATGAACAACCTCTGACTGCAGCTCACTTCTATTATTCCTGGGAGAAA	396							
QY	62	ACAAATACTGCAATGGGAATGCACAT	88							
Db	395	GTAGACATAACTATGGTGTACGCATAT	369							

RESULT	10
BQ864839	
LOCUS	
DEFINITION	BQ864839 490 bp mRNA linear EST 14-AUG-2002 OGC27N10.yg.abl QG_ABCDI lettuce salinas Lactuca sativa cDNA clone OGC27N10.mRNA sequence.

ACCESSION	EQ864839	
VERSION	EQ864839.1	GI:22250314
KEYWORDS	EST.	
SOURCE	Lactuca sativa	
ORGANISM	Lactuca sativa	

REFERENCE
1 (bases 1 to 490)
Cichorieae; Lactuca.
Cichoriaceae; Asterales; Asteraceae; Cichorioideae;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicotyledons;
asterids; campanulids; Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta

AUTHORS Kozik, A., Michelmore, R.W., Knapp, S., Matvienko, M., Rieseberg, L., Lin, H., van Damme, M., Lavelle, D., Chevalier, P., Ziegler, J., Ellison, P., Kolman, J., Slabaugh, M.S., Livingston, K., Zhou, Y., Lai, Z., Church, S., Jackson, L. and Bradford, K.

TITLE Lettuce and Sunflower ESTs from the Compositeae Genome Project

JOURNAL <http://compgenomics.ucdavis.edu/>
Unpublished (2002)

COMMENT

Contact: Alexander Kozik [R.W.Michelmor@ucdavis.edu]
Department of Vegetable Crops, R.W.Michelmor Lab
University of California at Davis (UCD)
Amundson Hall, UCD, Davis, CA 95616, USA
Tel: 1-(530)-742-1742
Fax: 1-(530)-752-9659
Email: akozik@ucdavis.edu [michelmor@vegmail.ucdavis.edu]
belongs to contig Q3_CA_Contig3364, see <http://cgdb.ucdavis.edu/>
for details.
Plate: OGC27 row: N column: 10.

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FEATURES
source
Location/Qualifiers
1. .490
/organism="Lactuca sativa"
/mol_type="mRNA"
/cultivar="Salinas"
/db_xref="taxon:4236"
/clone="QGC27N10"
/lab_host="E.coli"
/clone_lib="QG_ABCDI lettuce salinas"
/note="vector: pRCDNASFIAB; the library was constructed
from 10 different sources of RNA from a single genotype.
Separate cDNAs were generated using primers that
incorporated unique 5' and 3' tags to distinguish each
source of RNA. cDNAs were then pooled, size-fractionated,
directionally cloned into a custom medium-copy vector and
transformations made with four size classes to minimize
size bias. Details of each source of RNA and library
construction can be obtained at http://cgpbdb.ucdavis.edu/
TAG SEQ=Not found"

```

[illegible]

TITLE	JOURNAL	COMMENT
1. The Role of the Teacher in the Classroom	Journal of Educational Research	1980, Vol. 83, No. 1, pp. 1-10
2. The Impact of Technology on Education	Journal of Educational Research	1980, Vol. 83, No. 2, pp. 11-20
3. The Importance of Parental Involvement	Journal of Educational Research	1980, Vol. 83, No. 3, pp. 21-30
4. The Effect of Teacher Expectations on Student Achievement	Journal of Educational Research	1980, Vol. 83, No. 4, pp. 31-40
5. The Role of the School in the Community	Journal of Educational Research	1980, Vol. 83, No. 5, pp. 41-50
6. The Impact of Teacher Education on Classroom Practice	Journal of Educational Research	1980, Vol. 83, No. 6, pp. 51-60
7. The Importance of Professional Development	Journal of Educational Research	1980, Vol. 83, No. 7, pp. 61-70
8. The Effect of Teacher Attitudes on Student Behavior	Journal of Educational Research	1980, Vol. 83, No. 8, pp. 71-80
9. The Role of the School in the Development of the Child	Journal of Educational Research	1980, Vol. 83, No. 9, pp. 81-90
10. The Impact of Teacher Research on Classroom Practice	Journal of Educational Research	1980, Vol. 83, No. 10, pp. 91-100

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High quality sequence stop: 303.
Location/Qualifiers
1. 377
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="GDB:1240129"
/db_xref="taxon:9606"
/clone="IMAGE:295208"
/sex="male"
/dev_stage="20 week-post conception fetus"
/lab_host="PH10B (ampicillin resistant)"
/clone_lib="Soares fetal liver spleen INFLS"
/note="Organ: Liver and Spleen; Vector: pT7T3D (Pharmacia)
with a modified polylinker; Site 1: Pac I; Site 2: Eco RI;
1st strand cDNA was primed with a Pac I - oligo(dT) primer
[5' - AACTGGAGAAATTAATTAAGATCTTTTCTTTTCTTTTCTTTT 3'],
double-stranded cDNA was ligated to Eco RI adaptors
(Pharmacia), digested with Pac I and cloned into the Pac I
and Eco RI sites of the modified pT7T3 vector. Library
went through one round of normalization. Library
constructed by Bento Soares and M. Patricia Ronaldo."

```

[illegible]

N57766
474 bp mRNA linear EST 28-JAN-1999
yy56e03.s1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:246748 3' similar to gb:X58957 TYROSINE-PROTEIN KINASE ATK (HUMAN); mRNA sequence.
N57766
N57766.1 GI:1201656

KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
Hominidae; Homo.
REFERENCE 1 (bases 1 to 474)
AUTHORS Hillier, L., Lennon, G., Becker, M., Bonaldo, M.F., Chiapelli, B.,
Chisoe, S., Dietrich, N., DuBuque, T., Favello, A., Gish, W.,
Hawkins, M., Hultman, M., Kucaba, T., Lacy, M., Le, M., Le, N.,
Mardis, E., Moore, B., Morris, M., Parsons, J., Prange, C., Rifkin, L.,
Rohlfing, T., Schellenberg, K., Soares, M.B., Tan, F., Thierry-Mieg, J.,
Trevaaskis, E., Underwood, K., Wohlmann, P., Waterston, R., Wilson, R.
and Marra, M.
TITLE Generation and analysis of 280,000 human expressed sequence tags
JOURNAL Genome Res. 6 (9), 807-828 (1996)
PUBMED 889549
COMMENT Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
This clone is available royalty-free through LNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 372 Std Error: 0.00
Seq primer: ml3 -40 forward
High quality sequence stop: 342.
FEATURES
Location/Qualifiers
1..474
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="GDB:3795994"
/db_xref="taxon:9606"
/clone="IMAGE:246748"
/sex="male"
/dev_stage="20 week-post conception fetus"
/lab_host="DH10B (ampicillin resistant)"
/clone_lib="Soares fetal liver spleen INFLS"
/note="Organ: Liver and Spleen; Vector: pT7T3D (Pharmacia)
with a modified polylinker; Site 1: Pac I; Site 2: Eco RI;
1st strand cDNA was primed with a Pac I - oligo(dT) primer
[5', AACTGGAAGAATTAAATTAAGACTTTTTTTTTTTTTTTT 3'],
double-stranded cDNA was ligated to Eco RI adaptors
(Pharmacia), digested with Pac I and cloned into the Pac I
and Eco RI sites of the modified pT7T3 vector. Library
went through one round of normalization. Library
constructed by Bento Soares and M.Fatima Bonaldo."

ORIGIN
Query Match 17.5%; Score 33.6; DB 8; Length 474;
Best Local Similarity 52.9%; Pred. No. 19;
Matches 72; Conservative 0; Mismatches 64; Indels 0; Gaps 0;
QY 38 ACACCTTGCTGGATATTGGGAGAAAACAATACTGCAATAGGGAATGCACATGGAGCACC 97
DB 207 AGACAGACTGAATTTGCGATGAATAATTTTTTTAGGAGGGAGGATGTAATAAGCGGCACA 148
QY 98 GAGGAGGTAATTACGGCTATTGTACGGATTGGGTGCTATTTCGAAGGATTGTCCGATA 157
DB 147 AAGGGGTCCACAGCTCTTTTGATGAGGCAATTTGGTAGAGCTTGGGGGGGTGTGTGTGGGG 88
QY 158 GTACACCGACTTGGCC 173
DB 87 GTGGACCGAATTGGC 72

Search completed: January 22, 2006, 00:34:31
Job time : 8948 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2006 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

Run on: January 21, 2006, 21:23:21 ; Search time 303 Seconds

(without alignments)
4223.172 Million cell updates/sec

Title: US-10-721-793-115
Perfect score: 192
Sequence: 1 aaagcggttatctggtgga.....ccctttctaataaagaatgc 192

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 4996997 seqs, 3332346308 residues

Total number of hits satisfying chosen parameters: 9993994

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N Geneseq 21.*
1: geneseqn1980s.*
2: geneseqn1990s.*
3: geneseqn2000s.*
4: geneseqn2001as.*
5: geneseqn2001bs.*
6: geneseqn2002as.*
7: geneseqn2002bs.*
8: geneseqn2003as.*
9: geneseqn2003bs.*
10: geneseqn2003cs.*
11: geneseqn2003ds.*
12: geneseqn2004as.*
13: geneseqn2004bs.*
14: geneseqn2005s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	192	100.0	192	14	ADY85771 DNA encod
2	192	100.0	323	14	ADY85769 DNA encod
3	190.4	99.2	192	14	ADY85775 DNA encod
4	190.4	99.2	323	14	ADY85773 DNA encod
5	156.8	81.7	192	14	ADY85807 DNA encod
6	156.8	81.7	320	14	ADY85805 DNA encod
7	155.2	80.8	192	14	ADY85851 DNA encod
8	155.2	80.8	320	14	ADY85849 DNA encod
9	152	79.2	192	14	ADY85703 DNA encod
10	152	79.2	258	14	ADY85701 DNA encod
11	150.4	78.3	192	14	ADY85699 DNA encod
12	150.4	78.3	254	14	ADY85697 DNA encod
13	145.4	75.7	198	14	ADY85747 DNA encod
14	145.4	75.7	323	14	ADY85745 DNA encod
15	126.8	66.0	189	14	ADY85767 DNA encod
16	126.8	66.0	311	14	ADY85765 DNA encod
17	124.6	64.9	323	14	ADY85757 DNA encod
18	124.6	64.9	323	14	ADY85761 DNA encod
19	123.2	64.2	192	14	ADY85763 DNA encod

20	123.2	64.2	192	14	ADY85759	ADY85759 DNA encod
21	123	64.1	195	14	ADY85803	ADY85803 DNA encod
22	123	64.1	198	14	ADY85831	ADY85831 DNA encod
23	123	64.1	323	14	ADY85801	ADY85801 DNA encod
24	123	64.1	323	14	ADY85829	ADY85829 DNA encod
25	119.8	62.4	198	14	ADY85723	ADY85723 DNA encod
26	119.8	62.4	198	14	ADY85727	ADY85727 DNA encod
27	119.8	62.4	198	14	ADY85815	ADY85815 DNA encod
28	119.8	62.4	198	14	ADY85819	ADY85819 DNA encod
29	119.8	62.4	322	14	ADY85721	ADY85721 DNA encod
30	119.8	62.4	322	14	ADY85725	ADY85725 DNA encod
31	119.8	62.4	323	14	ADY85817	ADY85817 DNA encod
32	119.8	62.4	323	14	ADY85813	ADY85813 DNA encod
33	118.2	61.6	195	14	ADY85795	ADY85795 DNA encod
34	118.2	61.6	198	14	ADY85811	ADY85811 DNA encod
35	118.2	61.6	319	14	ADY85809	ADY85809 DNA encod
36	118.2	61.6	323	14	ADY85793	ADY85793 DNA encod
37	116.6	60.7	195	14	ADY85739	ADY85739 DNA encod
38	116.6	60.7	274	14	ADY85737	ADY85737 DNA encod
39	116.6	60.7	323	14	ADY85753	ADY85753 DNA encod
40	115	59.9	195	14	ADY85827	ADY85827 DNA encod
41	115	59.9	195	14	ADY85823	ADY85823 DNA encod
42	115	59.9	323	14	ADY85821	ADY85821 DNA encod
43	115	59.9	323	14	ADY85825	ADY85825 DNA encod
44	113.4	59.1	195	14	ADY85799	ADY85799 DNA encod
45	113.4	59.1	195	14	ADY85679	ADY85679 DNA encod

ALIGNMENTS

RESULT 1
ADY85771
ID ADY85771 standard; DNA; 192 BP.

XX AC ADY85771;

XX DT 02-JUN-2005 (first entry)

XX DE DNA encoding the scorpion Ce13 toxin mature protein Seq 115.

XX KW gene; db; toxin; sodium channel; immunogenicity; antigen;
antibody production; venom; vaccine; diagnosis.

XX OS Centruroides elegans.

XX PN US2005065331-A1.

XX PD 24-MAR-2005.

XX PF 26-NOV-2003; 2003US-00721793.

XX PR 02-DEC-2002; 2002US-0430067P.

XX PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA.
(SILA-) LAB SILANES SA DE CV.

XX PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
Possani PLD;

XX DR WPI; 2005-252753/26.

XX DR P-PSDB; ADY85772.

XX PT Novel isolated scorpion toxin polypeptide, useful for preventing
envenomation from scorpion stings, and as vaccine to prevent envenomation
from venom of scorpions of genus Centruroides.

XX PS Claim 3; SEQ ID NO 115; 135pp; English.

XX CC This invention relates to novel scorpion toxin polynucleotides and the
CC encoded proteins thereof having any one of 142 fully defined amino acid
CC sequences given in the specification. Specifically, it refers to long
chain toxins that block the sodium channels of excitable cells and also

CC short chain toxins that affect Erg type potassium channels. The present
 CC invention describes immunogenic or antigenic compositions comprising a
 CC scorpion toxin protein or fragment thereof, which can be used for the
 CC generation of antibodies that are able to bind to and neutralize the in
 CC vivo effects of scorpion venom. As such, they can be used in compositions
 CC or appropriate recombinant fusion proteins in the development of vaccines
 CC that can prevent envenomation from stings of scorpions of the genus
 CC Centruroides. Furthermore, it provides a diagnostic method that uses an
 CC immunogenic matrix for the purification of specific immunoglobulins
 CC present in a sample that can determine the species of scorpion that has
 CC stung an individual through the detection of identifying antibodies. In
 CC addition, it provides methods that are useful for treating envenomation
 CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
 CC mature protein of a sodium channel modifier toxin isolated from a
 CC scorpion of the Centruroides genus, given in an exemplification of the
 CC invention.

XX Sequence 192 BP; 59 A; 35 C; 53 G; 45 T; 0 U; 0 Other;

Query Match 100.0%; Score 192; DB 14; Length 192;
 Best Local Similarity 100.0%; Pred. No. 5e-55;
 Matches 192; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AAAGACGGTTATCTGGTGGACAAAGACGGGCTGCAATACACTTGTCTGGATATTGGAGAA 60

DB 1 AAAGACGGTTATCTGGTGGACAAAGACGGGCTGCAATACACTTGTCTGGATATTGGAGAA 60

QY 61 AACAAATCTGCAATAGGGAATGCACATGGGAAGCACCGAGGAGGTAATTACGGCTATTGC 120

DB 61 AACAAATCTGCAATAGGGAATGCACATGGGAAGCACCGAGGAGGTAATTACGGCTATTGC 120

QY 121 TACGGATTGGGTGCTATTGGGAAGGATGTCGATAGTACACCGACTTGGCCCTTTCT 180

DB 121 TACGGATTGGGTGCTATTGGGAAGGATGTCGATAGTACACCGACTTGGCCCTTTCT 180

QY 181 AATAAAGATGC 192

DB 181 AATAAAGATGC 192

RESULT 2

ADY85769

ID ADY85769 standard; DNA; 323 BP.

XX AC ADY85769;

XX DT 02-JUN-2005 (first entry)

XX DE DNA encoding the full length scorpion Ce13 toxin protein Seq 113.

XX KW gene; ds; toxin; sodium channel; immunogenicity; antigen;

XX KW antibody production; venom; vaccine; diagnosis.

XX OS Centruroides elegans.

XX PN US2005065331-A1.

XX PD 24-MAR-2005.

XX PF 26-NOV-2003; 2003US-00721793.

XX PR 02-DEC-2002; 2002US-0430067P.

XX XX (UYME-) UNIV MEXICO NACIONAL AUTONOMA.

XX XX (SILA-) LAB SILANES SA DE CV.

XX XX Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;

XX XX Possani PLD;

XX XX WPI; 2005-252753/26.

XX DR P-PSDB; ADY85770.

XX XX Novel isolated scorpion toxin polypeptide, useful for preventing

PT envenomation from scorpion stings, and as vaccine to prevent envenomation
 PT from venom of scorpions of genus Centruroides.

XX Claim 1; SEQ ID NO 113; 135pp; English.

XX This invention relates to novel scorpion toxin polynucleotides and the
 CC encoded proteins thereof having any one of 142 fully defined amino acid
 CC sequences given in the specification. Specifically, it refers to long
 CC chain toxins that block the sodium channels of excitable cells and also
 CC short chain toxins that affect Erg type potassium channels. The present
 CC invention describes immunogenic or antigenic compositions comprising a
 CC scorpion toxin protein or fragment thereof, which can be used for the
 CC generation of antibodies that are able to bind to and neutralize the in
 CC vivo effects of scorpion venom. As such, they can be used in compositions
 CC or appropriate recombinant fusion proteins in the development of vaccines
 CC that can prevent envenomation from stings of scorpions of the genus
 CC Centruroides. Furthermore, it provides a diagnostic method that uses an
 CC immunogenic matrix for the purification of specific immunoglobulins
 CC present in a sample that can determine the species of scorpion that has
 CC stung an individual through the detection of identifying antibodies. In
 CC addition, it provides methods that are useful for treating envenomation
 CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
 CC full length protein of a sodium channel modifier toxin isolated from a
 CC scorpion of the Centruroides genus, given in an exemplification of the
 CC invention.

XX Sequence 323 BP; 99 A; 56 C; 82 G; 86 T; 0 U; 0 Other;

Query Match 100.0%; Score 192; DB 14; Length 323;
 Best Local Similarity 100.0%; Pred. No. 6.1e-55;
 Matches 192; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AAAGACGGTTATCTGGTGGACAAAGACGGGCTGCAATACACTTGTCTGGATATTGGAGAA 60

DB 65 AAAGACGGTTATCTGGTGGACAAAGACGGGCTGCAATACACTTGTCTGGATATTGGAGAA 124

QY 61 AACAAATCTGCAATAGGGAATGCACATGGGAAGCACCGAGGAGGTAATTACGGCTATTGC 120

DB 125 AACAAATCTGCAATAGGGAATGCACATGGGAAGCACCGAGGAGGTAATTACGGCTATTGC 184

QY 121 TACGGATTGGGTGCTATTGGGAAGGATGTCGATAGTACACCGACTTGGCCCTTTCT 180

DB 185 TACGGATTGGGTGCTATTGGGAAGGATGTCGATAGTACACCGACTTGGCCCTTTCT 244

QY 181 AATAAAGATGC 192

DB 245 AATAAAGATGC 256

RESULT 3

ADY85775

ID ADY85775 standard; DNA; 192 BP.

XX AC ADY85775;

XX DT 02-JUN-2005 (first entry)

XX DE DNA encoding the scorpion Ce13b toxin mature protein Seq 119.

XX KW gene; ds; toxin; sodium channel; immunogenicity; antigen;

XX KW antibody production; venom; vaccine; diagnosis.

XX OS Centruroides elegans.

XX PN US2005065331-A1.

XX PD 24-MAR-2005.

XX PF 26-NOV-2003; 2003US-00721793.

XX PR 02-DEC-2002; 2002US-0430067P.

XX XX (UYME-) UNIV MEXICO NACIONAL AUTONOMA.

PA (SILA-) LAB SILANES SA DE CV.
 XX Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
 PI Possani PLD;
 XX
 XX WPI; 2005-252753/26.
 DR P-PSDB; ADY85776.
 DR
 XX Novel isolated scorpion toxin polypeptide, useful for preventing
 PT envenomation from scorpion stings, and as vaccine to prevent envenomation
 PT from venom of scorpions of genus Centruroides.
 XX
 XX Claim 3; SEQ ID NO 119; 135pp; English.
 XX
 XX This invention relates to novel scorpion toxin polynucleotides and the
 CC encoded proteins thereof having any one of 142 fully defined amino acid
 CC sequences given in the specification. Specifically, it refers to long
 CC chain toxins that block the sodium channels of excitable cells and also
 CC short chain toxins that affect Erg type potassium channels. The present
 CC invention describes immunogenic or antigenic compositions comprising a
 CC scorpion toxin protein or fragment thereof, which can be used for the
 CC generation of antibodies that are able to bind to and neutralize the in
 CC vivo effects of scorpion venom. As such, they can be used in compositions
 CC or appropriate recombinant fusion proteins in the development of vaccines
 CC that can prevent envenomation from stings of scorpions of the genus
 CC Centruroides. Furthermore, it provides a diagnostic method that uses an
 CC immunogenic matrix for the purification of specific immunoglobulins
 CC present in a sample that can determine the species of scorpion that has
 CC stung an individual through the detection of identifying antibodies. In
 CC addition, it provides methods that are useful for treating envenomation
 CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
 CC mature protein of a sodium channel modifier toxin isolated from a
 CC scorpion of the Centruroides genus, given in an exemplification of the
 CC invention.
 XX
 XX Sequence 192 BP; 59 A; 36 C; 53 G; 44 T; 0 U; 0 Other;

Query Match 99.2%; Score 190.4; DB 14; Length 192;
 Best Local Similarity 99.5%; Pred. No. 1.7e-54;
 Matches 191; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 AAAGACGGTTATCTGCTGGACCAAGACGGCTGCAAAATACACTTGTGGATATGGAGAA 60
 DB 1 AAAGACGGTTATCTGCTGGACCAAGACGGCTGCAAAATACACTTGTGGATATGGAGAA 60
 QY 61 AACAAATACCTGCAATAGGGAATGCACATGCAAGCACCGGAGGTAATTACGGCTATTGC 120
 DB 61 AACAAATACCTGCAATAGGGAATGCACATGCAAGCACCGGAGGTAATTACGGCTATTGC 120
 QY 121 TACGGATTTGGGTGCTATTGCGAAGGATTTGCGGATAGTACACCGACTTGGCCCTTCT 180
 DB 121 TACGGATTTGGGTGCTATTGCGAAGGATTTGCGGATAGTACACCGACTTGGCCCTTCT 180
 QY 181 AATAAAGATGC 192
 DB 181 AATAAAGATGC 192

RESULT 4
 ADY85773
 ID ADY85773 standard; DNA; 323 BP.
 XX
 XX ADY85773;
 XX
 XX 02-JUN-2005 (first entry)
 XX
 XX DNA encoding the full length scorpion Cel13b toxin protein Seq 117.
 XX
 XX gene; ds; toxin; sodium channel; immunogenicity; antigen;
 KW antibody production; venom; vaccine; diagnosis.
 XX
 XX Centruroides elegans.
 OS
 XX

PN US2005065331-A1.
 XX 24-MAR-2005.
 XX
 XX 26-NOV-2003; 2003US-00721793.
 XX
 XX 02-DEC-2002; 2002US-0430067P.
 XX
 XX (UYME-) UNIV MEXICO NACIONAL AUTONOMA.
 PA (SILA-) LAB SILANES SA DE CV.
 XX Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
 PI Possani PLD;
 XX
 XX WPI; 2005-252753/26.
 DR P-PSDB; ADY85774.
 DR
 XX Novel isolated scorpion toxin polypeptide, useful for preventing
 PT envenomation from scorpion stings, and as vaccine to prevent envenomation
 PT from venom of scorpions of genus Centruroides.
 XX
 XX Claim 1; SEQ ID NO 117; 135pp; English.

This invention relates to novel scorpion toxin polynucleotides and the
 CC encoded proteins thereof having any one of 142 fully defined amino acid
 CC sequences given in the specification. Specifically, it refers to long
 CC chain toxins that block the sodium channels of excitable cells and also
 CC short chain toxins that affect Erg type potassium channels. The present
 CC invention describes immunogenic or antigenic compositions comprising a
 CC scorpion toxin protein or fragment thereof, which can be used for the
 CC generation of antibodies that are able to bind to and neutralize the in
 CC vivo effects of scorpion venom. As such, they can be used in compositions
 CC or appropriate recombinant fusion proteins in the development of vaccines
 CC that can prevent envenomation from stings of scorpions of the genus
 CC Centruroides. Furthermore, it provides a diagnostic method that uses an
 CC immunogenic matrix for the purification of specific immunoglobulins
 CC present in a sample that can determine the species of scorpion that has
 CC stung an individual through the detection of identifying antibodies. In
 CC addition, it provides methods that are useful for treating envenomation
 CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
 CC full length protein of a sodium channel modifier toxin isolated from a
 CC scorpion of the Centruroides genus, given in an exemplification of the
 CC invention.

Sequence 323 BP; 99 A; 57 C; 83 G; 84 T; 0 U; 0 Other;
 Query Match 99.2%; Score 190.4; DB 14; Length 323;
 Best Local Similarity 99.5%; Pred. No. 2.1e-54;
 Matches 191; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 AAAGACGGTTATCTGCTGGACCAAGACGGCTGCAAAATACACTTGTGGATATGGAGAA 60
 DB 65 AAAGACGGTTATCTGCTGGACCAAGACGGCTGCAAAATACACTTGTGGATATGGAGAA 124
 QY 61 AACAAATACCTGCAATAGGGAATGCACATGCAAGCACCGGAGGTAATTACGGCTATTGC 120
 DB 125 AACAAATACCTGCAATAGGGAATGCACATGCAAGCACCGGAGGTAATTACGGCTATTGC 184
 QY 121 TACGGATTTGGGTGCTATTGCGAAGGATTTGCGGATAGTACACCGACTTGGCCCTTCT 180
 DB 185 TACGGATTTGGGTGCTATTGCGAAGGATTTGCGGATAGTACACCGACTTGGCCCTTCT 244
 QY 181 AATAAAGATGC 192
 DB 245 AATAAAGATGC 256

RESULT 5
 ADY85807
 ID ADY85807 standard; DNA; 192 BP.
 XX
 XX AC
 XX ADY85807;
 XX

DT 02-JUN-2005 (first entry)
XX DNA encoding the bark scorpion CseV1a toxin mature protein Seq 151.
DE
XX gene; ds; toxin; sodium channel; immunogenicity; antigen;
KW antibody production; venom; vaccine; diagnosis.
XX
XX Centruroides sculpturatus.
XX
XX US2005065331-A1.
XX
XX PD 24-MAR-2005.
XX
XX PF 26-NOV-2003; 2003US-00721793.
XX
XX PR 02-DEC-2002; 2002US-0430067P.
XX
XX PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA.
XX PA (SILA-) LAB SILANES SA DE CV.
XX
XX PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
PI Possani PLD;
XX
XX WPI; 2005-252753/26.
DR P-PSDB; ADY85808.
XX
XX Novel isolated scorpion toxin polypeptide, useful for preventing
PT envenomation from scorpion stings, and as vaccine to prevent envenomation
PT from venom of scorpions of genus Centruroides.
XX
XX Claim 3; SEQ ID NO 151; 135pp; English.
XX
XX This invention relates to novel scorpion toxin polynucleotides and the
CC encoded proteins thereof having any one of 142 fully defined amino acid
CC sequences given in the specification. Specifically, it refers to long
CC chain toxins that block the sodium channels of excitable cells and also
CC short chain toxins that affect Erg type potassium channels. The present
CC invention describes immunogenic or antigenic compositions comprising a
CC scorpion toxin protein or fragment thereof, which can be used for the
CC generation of antibodies that are able to bind to and neutralize the in
CC vivo effects of scorpion venom. As such, they can be used in compositions
CC or appropriate recombinant fusion proteins in the development of vaccines
CC that can prevent envenomation from stings of scorpions of the genus
CC Centruroides. Furthermore, it provides a diagnostic method that uses an
CC immunogenic matrix for the purification of specific immunoglobulins
CC present in a sample that can determine the species of scorpion that has
CC stung an individual through the detection of identifying antibodies. In
CC addition, it provides methods that are useful for treating envenomation
CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
CC mature protein of a sodium channel modifier toxin isolated from a
CC scorpion of the Centruroides genus, given in an exemplification of the
CC invention.
XX
SQ Sequence 192 BP; 62 A; 32 C; 51 G; 47 T; 0 U; 0 Other;
Query Match 81.7%; Score 156.8; DB 14; Length 192;
Best Local Similarity 88.5%; Pred. No. 4.9e-43;
Matches 170; Conservative 0; Mismatches 22; Indels 0; Gaps 0;
QY 1 AAAGACGGTTATCTGGTGGACAGACGGCGCTGCAAAATACACTTGTCTGGATATTGGGAGAA 60
DB 1 AAGGACGGTTATCTAGTGGAAAGACGGCGCTGCAAAAGAGACTTGTCTACAAATTGGGAGAA 60
QY 61 AACAAATCTGCAATAGGGAATGCATATGGAAGACCGAGAGGTAAATTACGGCTATTGC 120
DB 61 AACGATTTTTCATAGGGAATGCATATGGAAGACCATAGGAGGTAGTATTGGCTATTTC 120
QY 121 TACGGAATTTGGTGTCTATTGGAGGATTTGTCGATAGTACACGACTTGGCCCTTTCT 180
DB 121 TACGGAATTTGGTGTCTATTGGAGGATTTGTCGATAGTACACGACTTGGCCCTTTCT 180
QY 181 AATAAAGATGC 192
||||| |||||

Db 181 AATAAAGATGC 192
RESULT 6
ADY85805
ID ADY85805 standard; DNA; 320 BP.
XX
XX AC ADY85805;
XX
XX DT 02-JUN-2005 (first entry)
XX
XX DE DNA encoding the full length bark scorpion CseV1a toxin protein Seq 149.
XX
XX KW gene; ds; toxin; sodium channel; immunogenicity; antigen;
KW antibody production; venom; vaccine; diagnosis.
XX
XX OS Centruroides sculpturatus.
XX
XX PN US2005065331-A1.
XX
XX PD 24-MAR-2005.
XX
XX PF 26-NOV-2003; 2003US-00721793.
XX
XX PR 02-DEC-2002; 2002US-0430067P.
XX
XX PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA.
XX PA (SILA-) LAB SILANES SA DE CV.
XX
XX PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
PI Possani PLD;
XX
XX WPI; 2005-252753/26.
DR P-PSDB; ADY85806.
XX
XX Novel isolated scorpion toxin polypeptide, useful for preventing
PT envenomation from scorpion stings, and as vaccine to prevent envenomation
PT from venom of scorpions of genus Centruroides.
XX
XX Claim 1; SEQ ID NO 149; 135pp; English.
XX
XX This invention relates to novel scorpion toxin polynucleotides and the
CC encoded proteins thereof having any one of 142 fully defined amino acid
CC sequences given in the specification. Specifically, it refers to long
CC chain toxins that block the sodium channels of excitable cells and also
CC short chain toxins that affect Erg type potassium channels. The present
CC invention describes immunogenic or antigenic compositions comprising a
CC scorpion toxin protein or fragment thereof, which can be used for the
CC generation of antibodies that are able to bind to and neutralize the in
CC vivo effects of scorpion venom. As such, they can be used in compositions
CC or appropriate recombinant fusion proteins in the development of vaccines
CC that can prevent envenomation from stings of scorpions of the genus
CC Centruroides. Furthermore, it provides a diagnostic method that uses an
CC immunogenic matrix for the purification of specific immunoglobulins
CC present in a sample that can determine the species of scorpion that has
CC stung an individual through the detection of identifying antibodies. In
CC addition, it provides methods that are useful for treating envenomation
CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
CC full length protein of a sodium channel modifier toxin isolated from a
CC scorpion of the Centruroides genus, given in an exemplification of the
CC invention.
XX
SQ Sequence 320 BP; 100 A; 51 C; 80 G; 89 T; 0 U; 0 Other;
Query Match 81.7%; Score 156.8; DB 14; Length 320;
Best Local Similarity 88.5%; Pred. No. 5.9e-43;
Matches 170; Conservative 0; Mismatches 22; Indels 0; Gaps 0;
QY 1 AAAGACGGTTATCTGGTGGACAGACGGCGCTGCAAAATACACTTGTCTGGATATTGGGAGAA 60
DB 62 AAGGACGGTTATCTAGTGGAAAGACGGCGCTGCAAAAGAGACTTGTCTACAAATTGGGAGAA 121
QY 61 AACAAATCTGCAATAGGGAATGCATATGGAAGACCGAGAGGTAAATTACGGCTATTGC 120
||||| |||||

Db 122 AACGATTTTGCATAGGGAATGCAATGGAAGCACATAGGAGGTAGTTATGGCTATTTC 181
QY 121 TACGATTTGGTGTCTATTGCGAAGGATTCGCGATAGTACACCGACTTGGCCCTTCT 180
Db 182 TACGATTTGGTGTCTATTGCGAAGGATTCGCGATAGTACACCGACTTGGCCCTTCT 241
QY 181 AATAAAGATGC 192
Db 242 AATAAAGATGC 253

RESULT 7
ADY85851
ID ADY85851 standard; DNA; 192 BP.
AC ADY85851;
XX
DT 02-JUN-2005 (first entry)
XX
DE DNA encoding the bark scorpion CseI_x toxin mature protein Seq 195.

XX
KW gene; ds; toxin; sodium channel; immunogenicity; antigen;
KW antibody production; venom; vaccine; diagnosis.
XX
OS Centruroides sculpturatus.

XX US2005065331-A1.
XX 24-MAR-2005.
XX 26-NOV-2003; 2003US-00721793.
XX 02-DEC-2002; 2002US-0430067P.
XX (UYME-) UNIV MEXICO NACIONAL AUTONOMA.
XX (SILA-) LAB SILANES SA DE CV.
XX Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
PI Possani PLD;
XX
XX WPI: 2005-252753/26.
XX P-PSDB; ADY85852.

XX Novel isolated scorpion toxin polypeptide, useful for preventing
PT envenomation from scorpion stings, and as vaccine to prevent envenomation
PT from venom of scorpions of genus Centruroides.

XX Claim 3; SEQ ID NO 195; 135pp; English.

XX This invention relates to novel scorpion toxin polynucleotides and the
CC encoded proteins thereof having any one of 142 fully defined amino acid
CC sequences given in the specification. Specifically, it refers to long
CC chain toxins that block the sodium channels of excitable cells and also
CC short chain toxins that affect Erg type potassium channels. The present
CC invention describes immunogenic or antigenic compositions comprising a
CC scorpion toxin protein or fragment thereof, which can be used for the
CC generation of antibodies that are able to bind to and neutralize the in
CC vivo effects of scorpion venom. As such, they can be used in compositions
CC or appropriate recombinant fusion proteins in the development of vaccines
CC that can prevent envenomation from stings of scorpions of the genus
CC Centruroides. Furthermore, it provides a diagnostic method that uses an
CC immunogenic matrix for the purification of specific immunoglobulins
CC present in a sample that can determine the species of scorpion that has
CC stung an individual through the detection of identifying antibodies. In
CC addition, it provides methods that are useful for treating envenomation
CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
CC mature protein of a sodium channel modifier toxin isolated from a
CC scorpion of the Centruroides genus, given in an exemplification of the
CC invention.

XX Sequence 192 BP; 62 A; 29 C; 54 G; 47 T; 0 U; 0 Other;

Query Match 80.8%; Score 155.2; DB 14; Length 192;
Best Local Similarity 88.0%; Pred. No. 1.7e-42;
Matches 169; Conservative 0; Mismatches 23; Indels 0; Gaps 0;

QY 1 AAAGACGGTTATCTGTTGGCAAGACGGCTGCAAAATACACTTGTCTGATATTGGGAGAA 60
Db 1 AAGGAAGTTATCTGTTGGACGTTAAGGCTGCAAAAAAATTTGCTGGAATTTGGAGAT 60
QY 61 AACAAATCTGCAATAGGGAATGCACATGGAAGCAACCGAGAGGTAATTACGGCTATTGC 120
Db 61 AACGATTATTGCAATAGGGAATGTAATGGAAGCACATAGGAGGTAGTTACGGCTATTGC 120
QY 121 TACGGATTTGGTGTCTATTGCGAAGGATTCGCGATAGTACACCGACTTGGCCCTTCT 180
Db 121 TACGGATTTGGTGTCTATTGCGAAGGATTCGCGATAGTACACCGACTTGGCCCTTCT 180
QY 181 AATAAAGATGC 192
Db 181 AATAAAGATGC 192

RESULT 8
ADY85849
ID ADY85849 standard; DNA; 320 BP.
XX
AC ADY85849;
XX
DT 02-JUN-2005 (first entry)
XX
DE DNA encoding the full length bark scorpion CseI_x toxin protein Seq 193.

XX
KW gene; ds; toxin; sodium channel; immunogenicity; antigen;
KW antibody production; venom; vaccine; diagnosis.

XX Centruroides sculpturatus.

XX US2005065331-A1.

XX 24-MAR-2005.

XX 26-NOV-2003; 2003US-00721793.

XX 02-DEC-2002; 2002US-0430067P.

XX (UYME-) UNIV MEXICO NACIONAL AUTONOMA.

XX (SILA-) LAB SILANES SA DE CV.

XX Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
PI Possani PLD;

XX WPI: 2005-252753/26.

XX P-PSDB; ADY85850.

XX Novel isolated scorpion toxin polypeptide, useful for preventing
PT envenomation from scorpion stings, and as vaccine to prevent envenomation
PT from venom of scorpions of genus Centruroides.

XX Claim 1; SEQ ID NO 193; 135pp; English.

XX This invention relates to novel scorpion toxin polynucleotides and the
CC encoded proteins thereof having any one of 142 fully defined amino acid
CC sequences given in the specification. Specifically, it refers to long
CC chain toxins that block the sodium channels of excitable cells and also
CC short chain toxins that affect Erg type potassium channels. The present
CC invention describes immunogenic or antigenic compositions comprising a
CC scorpion toxin protein or fragment thereof, which can be used for the
CC generation of antibodies that are able to bind to and neutralize the in
CC vivo effects of scorpion venom. As such, they can be used in compositions
CC or appropriate recombinant fusion proteins in the development of vaccines
CC that can prevent envenomation from stings of scorpions of the genus
CC Centruroides. Furthermore, it provides a diagnostic method that uses an
CC immunogenic matrix for the purification of specific immunoglobulins
CC present in a sample that can determine the species of scorpion that has

CC stung an individual through the detection of identifying antibodies. In
 CC addition, it provides methods that are useful for treating envenomation
 CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
 CC full length protein of a sodium channel modifier toxin isolated from a
 CC scorpion of the Centruroides genus, given in an exemplification of the
 CC invention.

XX Sequence 320 BP; 99 A; 49 C; 85 G; 87 T; 0 U; 0 Other;

Query Match 80.8%; Score 155.2; DB 14; Length 320;
 Best Local Similarity 88.0%; Pred. No. 2.1e-42;
 Matches 169; Conservative 0; Mismatches 23; Indels 0; Gaps 0;

QY 1 AAAGACGGTTATCTGCTGACAAAGACGGCTGCAAAATACACTTGTGATATTGGAGAA 60
 DB 62 AAGGAAGGTTATCTGCTGACCTAAGGGCTGCAAAAAAATTTGCGAAATTTGGAGAT 121
 QY 61 AACAAATACCTGCAATAGGGAATGCACATGGAAGCACCGAGGAGTAATTACGGCTATTGC 120
 DB 122 AACGATTATTGCAATAGGGAATGTAATGGAAGCACATAGGAGGTAGTACGGCTATTGC 181
 QY 121 TACGGATTGGTGCTATTGGGAAGGATTGTCGATAGTACACCGACTTGGCCCCCTTCT 180
 DB 182 TACGGATTGGTGCTATTGGGAAGGATTGTCGATAGTACACCGACTTGGCCCCCTTCT 241
 QY 181 AATAAAGATGC 192
 DB 242 AATAAAGATGC 253

RESULT 9

ADY85703

ID ADY85703 standard; DNA; 192 BP.

AC ADY85703;

DT 02-JUN-2005 (first entry)

XX DNA encoding the bark scorpion Cex10 toxin mature protein Seq 47.

DE gene; ds; toxin; sodium channel; immunogenicity; antigen;
 KW antibody production; venom; vaccine; diagnosis.

XX Centruroides exilicauda.

OS US2005065331-A1.

XX 24-MAR-2005.

XX 26-NOV-2003; 2003US-00721793.

XX 02-DEC-2002; 2002US-0430067P.

XX (UYME-) UNIV MEXICO NACIONAL AUTONOMA.

XX (SILA-) LAB SILANES SA DE CV.

XX Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;

PI Possani PLD;

XX WPI; 2005-252753/26.

XX P-PSDB; ADY85704.

XX Novel isolated scorpion toxin polypeptide, useful for preventing
 PT envenomation from scorpion stings, and as vaccine to prevent envenomation
 PT from venom of scorpions of genus Centruroides.

PS Claim 3; SEQ ID NO 47; 135pp; English.

XX This invention relates to novel scorpion toxin polynucleotides and the
 CC encoded proteins thereof having any one of 142 fully defined amino acid
 CC sequences given in the specification. Specifically, it refers to long
 CC chain toxins that block the sodium channels of excitable cells and also
 CC short chain toxins that affect Erg type potassium channels. The present

CC invention describes immunogenic or antigenic compositions comprising a
 CC scorpion toxin protein or fragment thereof, which can be used for the
 CC generation of antibodies that are able to bind to and neutralize the in
 CC vivo effects of scorpion venom. As such, they can be used in compositions
 CC or appropriate recombinant fusion proteins in the development of vaccines
 CC that can prevent envenomation from stings of scorpions of the genus
 CC Centruroides. Furthermore, it provides a diagnostic method that uses an
 CC immunogenic matrix for the purification of specific immunoglobulins
 CC present in a sample that can determine the species of scorpion that has
 CC stung an individual through the detection of identifying antibodies. In
 CC addition, it provides methods that are useful for treating envenomation
 CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
 CC mature protein of a sodium channel modifier toxin isolated from a
 CC scorpion of the Centruroides genus, given in an exemplification of the
 CC invention.

SQ Sequence 192 BP; 57 A; 34 C; 52 G; 49 T; 0 U; 0 Other;

Query Match 79.2%; Score 152; DB 14; Length 192;
 Best Local Similarity 87.0%; Pred. No. 2.1e-41;
 Matches 167; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

QY 1 AAAGACGGTTATCTGCTGACAAAGACGGCTGCAAAATACACTTGTGATATTGGAGAA 60
 DB 1 AAGACGGTTATCTGCTGAGGTACGGCTGCAAAAAGTCTTGCTATAAATTGGAGAA 60
 QY 61 AACAAATACCTGCAATAGGGAATGCACATGGAAGCACCGAGGAGTAATTACGGCTATTGC 120
 DB 61 AACAAATTCGCAATAGGGAATGCAAAATGAAGCACCGAGGAGTAGTTACGGCTATTGC 120
 QY 121 TACGGATTGGTGCTATTGGGAAGGATTGTCGATAGTACACCGACTTGGCCCCCTTCT 180
 DB 121 TATTTTTTTGGTGCTATTGGGAAGGATTGGCCGAAAAGTACACCGACTTGGCCCCCTTCT 180
 QY 181 AATAAAGATGC 192
 DB 181 AATAAATCATGC 192

RESULT 10

ADY85701

ID ADY85701 standard; DNA; 258 BP.

AC ADY85701;

XX 02-JUN-2005 (first entry)

XX DNA encoding the full length bark scorpion Cex10 toxin protein Seq 45.

DE gene; ds; toxin; sodium channel; immunogenicity; antigen;
 KW antibody production; venom; vaccine; diagnosis.

XX Centruroides exilicauda.

XX US2005065331-A1.

XX 24-MAR-2005.

XX 26-NOV-2003; 2003US-00721793.

XX 02-DEC-2002; 2002US-0430067P.

XX (UYME-) UNIV MEXICO NACIONAL AUTONOMA.

XX (SILA-) LAB SILANES SA DE CV.

XX Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;

PI Possani PLD;

XX WPI; 2005-252753/26.

XX P-PSDB; ADY85702.

XX Novel isolated scorpion toxin polypeptide, useful for preventing
 PT envenomation from scorpion stings, and as vaccine to prevent envenomation

PT from venom of scorpions of genus *Centruroides*.
 XX Claim 1; SEQ ID NO 45; 135pp; English.
 XX This invention relates to novel scorpion toxin polynucleotides and the
 CC encoded proteins thereof having any one of 142 fully defined amino acid
 CC sequences given in the specification. Specifically, it refers to long
 CC chain toxins that block the sodium channels of excitable cells and also
 CC short chain toxins that affect Erg type potassium channels. The present
 CC invention describes immunogenic or antigenic compositions comprising a
 CC scorpion toxin protein or fragment thereof, which can be used for the
 CC generation of antibodies that are able to bind to and neutralize the in
 CC vivo effects of scorpion venom. As such, they can be used in compositions
 CC or appropriate recombinant fusion proteins in the development of vaccines
 CC that can prevent envenomation from stings of scorpions of the genus
 CC *Centruroides*. Furthermore, it provides a diagnostic method that uses an
 CC immunogenic matrix for the purification of specific immunoglobulins
 CC present in a sample that can determine the species of scorpion that has
 CC stung an individual through the detection of identifying antibodies. In
 CC addition, it provides methods that are useful for treating envenomation
 CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
 CC full length protein of a sodium channel modifier toxin isolated from a
 CC scorpion of the *Centruroides* genus, given in an exemplification of the
 CC invention.
 XX Sequence 258 BP; 79 A; 48 C; 64 G; 67 T; 0 U; 0 Other;
 SQ

Query Match 79.2%; Score 152; DB 14; Length 258;
 Best Local Similarity 87.0%; Pred. No. 2.3e-41;
 Matches 167; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

QY 1 AAGACGGTTATCTGGTGACAGACGGCTGCAATACACTTGTGGATTTGGAGAA 60
 |||
 Db 1 AAGACGGTTATCTGGTGAGGTACGGCTGCAAAAAGTCTGTATAAATTTGGAGAA 60
 |||

QY 61 AACAAATCTGCAATAGGGAATGCACATGGAAAGCACCGAGGAGTAATTCGGCTATTGTC 120
 |||
 Db 61 AACAAATCTGCAATAGGGAATGCACATGGAAAGCACCGAGGAGTAATTCGGCTATTGTC 120
 |||

QY 121 TACGGATTGGTGCTATTGGCAAGGATTTGCCGATAGTACACCGACTTGGCCCTTCT 180
 |||
 Db 121 TATTTTGGTGCTATTGGCAAGGATTTGCCGATAGTACACCGACTTGGCCCTTCT 180
 |||

QY 181 AATAAAGATGC 192
 |||
 Db 181 AATAAATCATGC 192
 |||

RESULT 11
 ADY85699
 ID ADY85699 standard; DNA; 192 BP.
 XX AC
 XX ADY85699;
 XX
 DT 02-JUN-2005 (first entry)
 XX
 DE DNA encoding the bark scorpion Cex9 toxin mature protein Seq 43.
 XX gene; ds; toxin; sodium channel; immunogenicity; antigen;
 KW antibody production; venom; vaccine; diagnosis.
 XX
 OS *Centruroides exilicauda*.
 XX
 XX US2005065331-A1.
 XX
 XX 24-MAR-2005.
 XX
 XX 26-NOV-2003; 2003US-00721793.
 XX
 XX 02-DEC-2002; 2002US-0430067P.
 XX
 XX (UYME-) UNIV MEXICO NACIONAL AUTONOMA.
 PA (SILA-) LAB SILANES SA DE CV.
 PA

XX Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
 PI Possani PLD;
 XX WPI; 2005-252753/26.
 DR P-PSDB; ADY85700.
 XX Novel isolated scorpion toxin polypeptide, useful for preventing
 PT envenomation from scorpion stings, and as vaccine to prevent envenomation
 PT from venom of scorpions of genus *Centruroides*.
 XX Claim 3; SEQ ID NO 43; 135pp; English.
 XX This invention relates to novel scorpion toxin polynucleotides and the
 CC encoded proteins thereof having any one of 142 fully defined amino acid
 CC sequences given in the specification. Specifically, it refers to long
 CC chain toxins that block the sodium channels of excitable cells and also
 CC short chain toxins that affect Erg type potassium channels. The present
 CC invention describes immunogenic or antigenic compositions comprising a
 CC scorpion toxin protein or fragment thereof, which can be used for the
 CC generation of antibodies that are able to bind to and neutralize the in
 CC vivo effects of scorpion venom. As such, they can be used in compositions
 CC or appropriate recombinant fusion proteins in the development of vaccines
 CC that can prevent envenomation from stings of scorpions of the genus
 CC *Centruroides*. Furthermore, it provides a diagnostic method that uses an
 CC immunogenic matrix for the purification of specific immunoglobulins
 CC present in a sample that can determine the species of scorpion that has
 CC stung an individual through the detection of identifying antibodies. In
 CC addition, it provides methods that are useful for treating envenomation
 CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
 CC mature protein of a sodium channel modifier toxin isolated from a
 CC scorpion of the *Centruroides* genus, given in an exemplification of the
 CC invention.
 XX Sequence 192 BP; 57 A; 35 C; 52 G; 48 T; 0 U; 0 Other;
 SQ

Query Match 78.3%; Score 150.4; DB 14; Length 192;
 Best Local Similarity 86.5%; Pred. No. 7.3e-41;
 Matches 166; Conservative 0; Mismatches 26; Indels 0; Gaps 0;

QY 1 AAGACGGTTATCTGGTGACAGACGGCTGCAATACACTTGTGGATTTGGAGAA 60
 |||
 Db 1 AAGACGGTTATCTGGTGAGGTACGGCTGCAAAAAGTCTGTATAAATTTGGAGAA 60
 |||

QY 61 AACAAATCTGCAATAGGGAATGCACATGGAAAGCACCGAGGAGTAATTCGGCTATTGTC 120
 |||
 Db 61 AACAAATCTGCAATAGGGAATGCACATGGAAAGCACCGAGGAGTAATTCGGCTATTGTC 120
 |||

QY 121 TACGGATTGGTGCTATTGGCAAGGATTTGCCGATAGTACACCGACTTGGCCCTTCT 180
 |||
 Db 121 TATTTTGGTGCTATTGGCAAGGATTTGCCGATAGTACACCGACTTGGCCCTTCT 180
 |||

QY 181 AATAAAGATGC 192
 |||
 Db 181 AATAAATCATGC 192
 |||

RESULT 12
 ADY85697
 ID ADY85697 standard; DNA; 254 BP.
 XX AC
 XX ADY85697;
 XX
 DT 02-JUN-2005 (first entry)
 XX
 DE DNA encoding the full length bark scorpion Cex9 toxin protein Seq 41.
 XX gene; ds; toxin; sodium channel; immunogenicity; antigen;
 KW antibody production; venom; vaccine; diagnosis.
 XX
 OS *Centruroides exilicauda*.
 XX
 XX US2005065331-A1.
 XX
 XX 24-MAR-2005.
 XX
 XX 26-NOV-2003; 2003US-00721793.
 XX
 XX 02-DEC-2002; 2002US-0430067P.
 XX
 XX (UYME-) UNIV MEXICO NACIONAL AUTONOMA.
 PA (SILA-) LAB SILANES SA DE CV.
 PA

```
XX PD 24-MAR-2005.
XX PF 26-NOV-2003; 2003US-00721793.
XX PR 02-DEC-2002; 2002US-0430067P.
XX PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA.
XX PI (SILA-) LAB SILANES SA DE CV.
XX FI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
XX PI Possani PLD;
XX DR WPI; 2005-252753/26.
XX DR P-PSDB; ADY85698.
XX PT Novel isolated scorpion toxin polypeptide, useful for preventing
XX PT envenomation from scorpion stings, and as vaccine to prevent envenomation
XX PT from venom of scorpions of genus Centruroides.
XX PS Claim 1; SEQ ID NO 41; 135pp; English.
XX CC This invention relates to novel scorpion toxin polynucleotides and the
XX CC encoded proteins thereof having any one of 142 fully defined amino acid
XX CC sequences given in the specification. Specifically, it refers to long
XX CC chain toxins that block the sodium channels of excitable cells and also
XX CC short chain toxins that affect Erg type potassium channels. The present
XX CC invention describes immunogenic or antigenic compositions comprising a
XX CC scorpion toxin protein or fragment thereof, which can be used for the
XX CC generation of antibodies that are able to bind to and neutralize the in
XX CC vivo effects of scorpion venom. As such, they can be used in compositions
XX CC or appropriate recombinant fusion proteins in the development of vaccines
XX CC that can prevent envenomation from stings of scorpions of the genus
XX CC Centruroides. Furthermore, it provides a diagnostic method that uses an
XX CC immunogenic matrix for the purification of specific immunoglobulins
XX CC present in a sample that can determine the species of scorpion that has
XX CC stung an individual through the detection of identifying antibodies. In
XX CC addition, it provides methods that are useful for treating envenomation
XX CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
XX CC full length protein of a sodium channel modifier toxin isolated from a
XX CC scorpion of the Centruroides genus, given in an exemplification of the
XX CC invention.
XX SQ Sequence 254 BP; 79 A; 48 C; 63 G; 64 T; 0 U; 0 Other;
Query Match 78.3%; Score 150.4; DB 14; Length 254;
Best Local Similarity 86.5%; Pred. No. 8.2e-41;
Matches 166; Conservative 0; Mismatches 26; Indels 0; Gaps 0;
QY 1 AAAGACGGTTATCTGGTGACACAGACGGGCTGCAATATACACTTGTCTGATATTGGAGAA 60
DB 1 AAGGACGGTTATCTGGTGAGTGCTACGGGCTGCAAAAAGTCTTGTATATAATTGGAGAA 60
QY 61 AACAAATCTGCAATAGGAATGCACATGGAGCAGCCGAGGAGGTAATTACGGCTATTGC 120
DB 61 AACAAATCTGCAATAGGAATGCACAAATGAAGTGAAGCAGGAGGAGGTAATTACGGCTATTGC 120
QY 121 TACGATTTGGGTGCTATTGGCAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB 121 TATTTTTTGGGTGCTATTGGCAAGGATTGGCCGAAAGTACACCGACTTGGCCCTTTCT 180
QY 181 AATAAAGATGC 192
DB 181 AATAAATATGC 192
RESULT 13
ADY85747
ID ADY85747 standard; DNA; 198 BP.
XX AC
XX AC ADY85747;
XX DT 02-JUN-2005 (first entry)

XX DE DNA encoding the Mexican scorpion Cn10b toxin mature protein Seq 91.
XX KW gene; ds; toxin; sodium channel; immunogenicity; antigen;
XX KW antibody production; venom; vaccine; diagnosis.
XX OS Centruroides noxius.
XX PN US2005065331-A1.
XX PD 24-MAR-2005.
XX PF 26-NOV-2003; 2003US-00721793.
XX PR 02-DEC-2002; 2002US-0430067P.
XX PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA.
XX PI (SILA-) LAB SILANES SA DE CV.
XX FI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
XX PI Possani PLD;
XX DR WPI; 2005-252753/26.
XX DR P-PSDB; ADY85748.
XX PT Novel isolated scorpion toxin polypeptide, useful for preventing
XX PT envenomation from scorpion stings, and as vaccine to prevent envenomation
XX PT from venom of scorpions of Genus Centruroides.
XX PS Claim 3; SEQ ID NO 91; 135pp; English.
XX CC This invention relates to novel scorpion toxin polynucleotides and the
XX CC encoded proteins thereof having any one of 142 fully defined amino acid
XX CC sequences given in the specification. Specifically, it refers to long
XX CC chain toxins that block the sodium channels of excitable cells and also
XX CC short chain toxins that affect Erg type potassium channels. The present
XX CC invention describes immunogenic or antigenic compositions comprising a
XX CC scorpion toxin protein or fragment thereof, which can be used for the
XX CC generation of antibodies that are able to bind to and neutralize the in
XX CC vivo effects of scorpion venom. As such, they can be used in compositions
XX CC or appropriate recombinant fusion proteins in the development of vaccines
XX CC that can prevent envenomation from stings of scorpions of the genus
XX CC Centruroides. Furthermore, it provides a diagnostic method that uses an
XX CC immunogenic matrix for the purification of specific immunoglobulins
XX CC present in a sample that can determine the species of scorpion that has
XX CC stung an individual through the detection of identifying antibodies. In
XX CC addition, it provides methods that are useful for treating envenomation
XX CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
XX CC full length protein of a sodium channel modifier toxin isolated from a
XX CC scorpion of the Centruroides genus, given in an exemplification of the
XX CC invention.
XX SQ Sequence 198 BP; 67 A; 35 C; 51 G; 45 T; 0 U; 0 Other;
Query Match 75.7%; Score 145.4; DB 14; Length 198;
Best Local Similarity 87.7%; Pred. No. 3.7e-39;
Matches 171; Conservative 0; Mismatches 21; Indels 3; Gaps 1;
QY 1 AAAGACGGTTATCTGGTGAGCAA---GACGGGCTGCAAAATACACTTGTCTGATATTGGGA 57
DB 1 AAGGACGGTTATCTGGTGACAAAAGCACAGGCTGTAAATACAACTGCTTATATTGGGA 60
QY 58 GAAAAAATACTCAATAGGAATGCACATGGAGCAGCCGAGGAGGTAATTACGGCTAT 117
DB 61 GAAAAAATACTCAATAGGAATGCACAAAGCAGGAGGAGGTAATTACGGCTAT 120
QY 118 TGCTACGATTTGGGTGCTATTGGCAAGGATTGTCGATAGTACACCGACTTGGCCCTT 177
DB 121 TGCTACGATTTGGGTGCTATTGGCAAGGATTGTCGATAGTACACCGACTTGGCCCTT 180
QY 178 TCTAATAAAGATGC 192
DB 181 CCTAATAAAGATGC 195
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RESULT 14
ADY85745
ID ADY85745 standard; DNA; 323 BP.
XX
XX
AC ADY85745;
XX
DT 02-JUN-2005 (first entry)
XX
DE DNA encoding the full length Mexican scorpion Cn10b toxin protein Seq 89.
XX
KW gene; ds; toxin; sodium channel; immunogenicity; antigen;
KW antibody production; venom; vaccine; diagnosis.
XX
OS Centruroides noxius.
XX
PN US2005065331-A1.
XX
PD 24-MAR-2005.
XX
PF 26-NOV-2003; 2003US-00721793.
XX
PR 02-DEC-2002; 2002US-0430067P.
XX
PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA.
PA (SILA-) LAB SILANES SA DE CV.
XX
PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
PI Possani PLD;
XX
XX WPI; 2005-252753/26.
DR P-PSDB; ADY85746.
XX
XX Novel isolated scorpion toxin polypeptide, useful for preventing
PT envenomation from scorpion stings; and as vaccine to prevent envenomation
PT from venom of scorpions of genus Centruroides.
XX
XX Claim 1; SEQ ID NO 89; 135pp; English.
XX
XX This invention relates to novel scorpion toxin polynucleotides and the
CC encoded proteins thereof having any one of 142 fully defined amino acid
CC sequences given in the specification. Specifically, it refers to long
CC chain toxins that block the sodium channels of excitable cells and also
CC short chain toxins that affect Erg type potassium channels. The present
CC invention describes immunogenic or antigenic compositions comprising a
CC scorpion toxin protein or fragment thereof, which can be used for the
CC generation of antibodies that are able to bind to and neutralize the in
CC vivo effects of scorpion venom. As such, they can be used in compositions
CC or appropriate recombinant fusion proteins in the development of vaccines
CC that can prevent envenomation from stings of scorpions of the genus
CC Centruroides. Furthermore, it provides a diagnostic method that uses an
CC immunogenic matrix for the purification of specific immunoglobulins
CC present in a sample that can determine the species of scorpion that has
CC stung an individual through the detection of identifying antibodies. In
CC addition, it provides methods that are useful for treating envenomation
CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
CC full length protein of a sodium channel modifier toxin isolated from a
CC scorpion of the Centruroides genus, given in an exemplification of the
CC invention.
XX
XX Sequence 323 BP; 102 A; 57 C; 80 G; 84 T; 0 U; 0 Other;
SQ
Query Match 75.7%; Score 145.4; DB 14; Length 323;
Best Local Similarity 87.7%; Pred. No. 4.5e-39;
Matches 171; Conservative 0; Mismatches 21; Indels 3; Gaps 1;
QY 1 AAGACGGTATCTGGTGACAA---GACGGGCTGCAATACACTTGGATATGGGA 57
DB 62 AAGGAAGGTATCTGGTGACAAAGCACAGGCTGTAAATACAACTGCTTGATTTGGGA 121
QY 58 GAAACAAATACTGCAATAGGGAATGCATGCAAGCCGAGGATTAATACGGCTAT 117
122 GAAACAAAACTCGCATATGGATATGCAATGCAAGCGAAGAACCAAGAGGTAGTTACGGCTAT 181
118 TGCTACGGATTTGGTGCTCTATTGCGAAGGATTTGCCGATAGTACACGACTTGGCCCTT 177
182 TGCTACGGATTTGGTGCTCTATTGCGAAGGATTTGCCGATAGTACACGACTTGGCCCTT 241
178 TCTAATAAAGATGC 192
242 CCTAATAAATCATGC 256
Db
QY
Db
QY
Db
RESULT 15
ADY85767
ID ADY85767 standard; DNA; 189 BP.
XX
XX ADY85767;
AC
XX
DT 02-JUN-2005 (first entry)
XX
DE DNA encoding the scorpion Ce7 toxin mature protein Seq 111.
XX
KW gene; ds; toxin; sodium channel; immunogenicity; antigen;
KW antibody production; venom; vaccine; diagnosis.
XX
OS Centruroides elegans.
XX
PN US2005065331-A1.
XX
PD 24-MAR-2005.
XX
PF 26-NOV-2003; 2003US-00721793.
XX
PR 02-DEC-2002; 2002US-0430067P.
XX
PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA.
PA (SILA-) LAB SILANES SA DE CV.
XX
PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
PI Possani PLD;
XX
XX WPI; 2005-252753/26.
DR P-PSDB; ADY85768.
XX
XX Novel isolated scorpion toxin polypeptide, useful for preventing
PT envenomation from scorpion stings; and as vaccine to prevent envenomation
PT from venom of scorpions of genus Centruroides.
XX
XX Claim 3; SEQ ID NO 111; 135pp; English.
XX
XX This invention relates to novel scorpion toxin polynucleotides and the
CC encoded proteins thereof having any one of 142 fully defined amino acid
CC sequences given in the specification. Specifically, it refers to long
CC chain toxins that block the sodium channels of excitable cells and also
CC short chain toxins that affect Erg type potassium channels. The present
CC invention describes immunogenic or antigenic compositions comprising a
CC scorpion toxin protein or fragment thereof, which can be used for the
CC generation of antibodies that are able to bind to and neutralize the in
CC vivo effects of scorpion venom. As such, they can be used in compositions
CC or appropriate recombinant fusion proteins in the development of vaccines
CC that can prevent envenomation from stings of scorpions of the genus
CC Centruroides. Furthermore, it provides a diagnostic method that uses an
CC immunogenic matrix for the purification of specific immunoglobulins
CC present in a sample that can determine the species of scorpion that has
CC stung an individual through the detection of identifying antibodies. In
CC addition, it provides methods that are useful for treating envenomation
CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
CC mature protein of a sodium channel modifier toxin isolated from a
CC scorpion of the Centruroides genus, given in an exemplification of the
CC invention.
XX
XX Sequence 189 BP; 55 A; 35 C; 52 G; 47 T; 0 U; 0 Other;
SQ
Query Match 66.0%; Score 126.8; DB 14; Length 189;
```

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Best Local Similarity 82.8%; Pred. No. 7.9e-33;
Matches 159; Conservative 0; Mismatches 27; Indels 6; Gaps 1;

Qy 1 AAAGACGGTTATCTGGTGGACAAGACGGGCTGCAAAATACACTTCTGGATATTGGAGAA 60
Db ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
4 AAGGACGGTTATCTGGTGAACAAGACGGGCTGCAAAATACAATTGCTGGATATTGGAGAA 63
Qy 61 AACAAATACTGCNATAGGGAATGCACATGGGAAGCACCGAGGAGGTAAATTACGGCTATTGC 120
Db ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
64 AACAAATACTGCAATTTCGGAATGC-----AAAGAGGTAGGTGCTGGTTACGGCTATTGC 117
Qy 121 TACGGATTGGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
Db ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
118 TATGCTTTGGGTGCTATTGGAAGGATTACCCGAAGCGTACTGACCTGGCCCTTTCT 177
Qy 181 AATAAAGATGC 192
Db ||||||| |||
178 GATAAACATGC 189
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Search completed: January 21, 2006, 21:36:21
Job time : 303 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2006 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: January 21, 2006, 21:28:41 ; Search time 1730 Seconds
(without alignments)
6308.637 Million cell updates/sec

Title: US-10-721-793-115
Perfect score: 192
Sequence: 1 aaacagcgttatctgggtgga.....ccctttctaataaaagatgc 192

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 5883141 seqs, 28421725653 residues
Total number of hits satisfying chosen parameters: 11766282

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

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2: gb_in.*
3: gb_env.*
4: gb_om.*
5: gb_ov.*
6: gb_pat.*
7: gb_ph.*
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10: gb_sts.*
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12: gb_un.*
13: gb_vi.*
14: gb_hcg.*
15: gb_pl.*

ALIGNMENTS

RESULT 1
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DEFINITION Centruroides sculpturatus isolate CSEI beta-toxin gene, partial
cde.

ACCESSION AY351300.1 GI:38017458
VERSION AY351300
KEYWORDS Centruroides sculpturatus (bark scorpion)
SOURCE Centruroides sculpturatus
ORGANISM Centruroides sculpturatus
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
Buthida; Buthoidea; Buthidae; Centruroides.

REFERENCE
1 (bases 1 to 192)
Zhu, S.
AUTHORS
TITLE Alignment of beta-toxin nucleotide sequences
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 192)
Zhu, S.
AUTHORS
TITLE Direct Submission
JOURNAL Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
Evenstraat, Leuven, Flanders 3000, Belgium

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Best Local Similarity 89.1%; Pred. No. 6.1e-35;
Matches 171; Conservative 0; Mismatches 21; Indels 0; Gaps 0;

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	158.4	82.5	192	2	AY351300 Centruroi
2	156.8	81.7	192	2	AY351297 Centruroi
3	156.8	81.7	319	2	CUDNATOXC
4	156.8	81.7	320	2	AF338460 Centruroi
5	155.2	80.8	192	2	AY351298 Centruroi
6	155.2	80.8	192	2	AY351299 Centruroi
7	155.2	80.8	320	2	AF338448 Centruroi
8	155.2	80.8	344	2	S81093 Centruroid
9	152	79.2	258	2	AY649868 Centruroi
10	150.4	78.3	254	2	AY649867 Centruroi
11	134.4	70.0	192	2	AY351302 Centruroi
12	134.4	70.0	192	2	AY351303 Centruroi
13	132.8	69.2	192	2	AY351301 Centruroi
14	131.2	68.3	192	2	AY351308 Centruroi
15	128	66.7	192	2	AY351307 Centruroi
16	124.6	64.9	335	2	CUDNATOXA
17	124.6	64.9	350	2	CUDNATOXB
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Db 121 TACGATTTGGGTGCTATTGGAGAGATGTCGATAGTACACCGACTTGGCCCTTTCT 180

QY 181 AATAAAGATGC 192
Db 181 AATAAAGATGC 192

RESULT 2
AY351297 192 bp DNA linear INV 31-DEC-2003
LOCUS Centruroides noxius isolate CnGTIV beta-toxin gene, partial cds.
ACCESSION AY351297
VERSION AY351297.1 GI:38017452
KEYWORDS
SOURCE Centruroides noxius (Mexican scorpion)
ORGANISM
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
Buthida; Buthoidea; Centruroides.
REFERENCE
AUTHORS Zhu,S
TITLE Alignment of beta-toxin nucleotide sequences
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 192)
AUTHORS Zhu,S.
TITLE Direct Submission
JOURNAL Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
Evenstraat, Leuven, Flanders 3000, Belgium
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QY 181 AATAAAGATGC 192
Db 181 AATAAAGATGC 192
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Db 181 AATAAAGATGC 192

RESULT 3
CUDNATOXC 319 bp mRNA linear INV 12-AUG-1993
LOCUS Centruroides noxius Na+-channel blocking toxin mRNA, 3' end of cds.
DEFINITION L05062.1 GI:304570
ACCESSION L05062.1
VERSION L05062.1
KEYWORDS Na+ channel; Na+-channel blocking toxin; sodium channel; sodium channel blocking toxin; toxin.
SOURCE Centruroides noxius (Mexican scorpion)
ORGANISM
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
Buthida; Buthoidea; Centruroides.
REFERENCE
AUTHORS Possani,L.D., Dent,M.A.R., Martin,B.M., Maelicke,A. and Svendsen,I.
TITLE The amino terminal sequence of several toxins from the venom of the Mexican scorpion Centruroides noxius Hoffmann
JOURNAL Carlsberg Res. Commun. 46, 207-214 (1981)
REFERENCE 2 (sites)
AUTHORS Carbone,E., Wanke,E., Prestipino,G., Possani,L.D. and Maelicke,A.
TITLE Selective blockage of voltage-dependent K+ channels by a novel scorpion toxin
JOURNAL Nature 296 (5852), 90-91 (1982)
REFERENCE 3 (sites)
AUTHORS Possani,L.D.
TITLE Structure of scorpion toxins
JOURNAL (in) Tu,A.T. (Ed.);
HANDBOOK OF NATURAL TOXINS, Vol. 2: 513-550;
Marcel Dekker, Inc., New York (1984)
REFERENCE 4 (sites)
AUTHORS Carbone,E., Prestipino,G., Franciolini,F., Dent,M.A. and Possani,L.D.
TITLE Selective modification of the squid axon Na currents by Centruroides noxius toxin II-10
JOURNAL J. Physiol. (Paris) 79 (4), 179-184 (1984)
REFERENCE 5 (bases 1 to 319)
AUTHORS Vazquez,A., Becerril,B., Martin,B.M., Zamudio,F., Bolivar,F. and Possani,L.D.
TITLE Primary structure determination and cloning of the cDNA encoding toxin 4 of the scorpion Centruroides noxius Hoffmann
JOURNAL FEBS Lett. 320 (1), 43-46 (1993)
REFERENCE 6 (sites)
AUTHORS Becerril,B., Vazquez,A., Garcia,C., Corona,M., Bolivar,F. and Possani,L.D.
TITLE Cloning and characterization of cDNAs that code for Na(+)-channel-blocking toxins of the scorpion Centruroides noxius Hoffmann
JOURNAL Gene 128 (2), 165-171 (1993)
REFERENCE 8390386
COMMENT Original source text: Centruroides noxius (strain HK9) (library: lambda gill) adult venomous glands cDNA to mRNA.
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AF338460
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DEFINITION Centruiroides exilicauda sodium-channel modifier toxin precursor
ACCESSION AF338460
VERSION AF338460.1 GI:16444991
KEYWORDS Centruiroides exilicauda
SOURCE Centruiroides exilicauda
ORGANISM Centruiroides exilicauda
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
Buthida; Buthoidea; Buthidae; Centruiroides.
REFERENCE 1 (bases 1 to 320)
AUTHORS Corona,M., Valdez-Cruz,N.A., Merino,E., Zurita,M. and Possani,L.D.
TITLE Genes and peptides from the scorpion Centruiroides sculpturatus
JOURNAL Toxicon 39 (12), 1893-1898 (2001)
PUBMED 11600153
REFERENCE 2 (bases 1 to 320)
AUTHORS Corona,M. and Possani,L.D.
TITLE Direct Submission
JOURNAL Submitted (22-JAN-2001) Bioestructura y Reconocimiento Molecular,
Instituto de Biotecnologia, Universidad Nacional Autonoma de
Mexico, Av. Universidad 2001, Cuernavaca, Morelos 62210, Mexico
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DEFINITION Centruiroides exilicauda sodium-channel modifier toxin precursor
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VERSION AF338460.1 GI:16444991
KEYWORDS Centruiroides exilicauda
SOURCE Centruiroides exilicauda
ORGANISM Centruiroides exilicauda
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
Buthida; Buthoidea; Buthidae; Centruiroides.
REFERENCE 1 (bases 1 to 320)
AUTHORS Corona,M., Valdez-Cruz,N.A., Merino,E., Zurita,M. and Possani,L.D.
TITLE Genes and peptides from the scorpion Centruiroides sculpturatus
JOURNAL Toxicon 39 (12), 1893-1898 (2001)
PUBMED 11600153
REFERENCE 2 (bases 1 to 320)
AUTHORS Corona,M. and Possani,L.D.
TITLE Direct Submission
JOURNAL Submitted (22-JAN-2001) Bioestructura y Reconocimiento Molecular,
Instituto de Biotecnologia, Universidad Nacional Autonoma de
Mexico, Av. Universidad 2001, Cuernavaca, Morelos 62210, Mexico
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4 AACGATTATTGCAATAGGAATGCATGGAAGCACCAGGAGGTAGTTATGGCTATTTC 181
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AF351298
LOCUS AF351298 192 bp DNA linear INV 31-DEC-2003
DEFINITION Centruiroides noxius isolate Cni beta-toxin Gene, partial cds.
ACCESSION AF351298
VERSION AF351298.1 GI:38017454
KEYWORDS Centruiroides noxius (Mexican scorpion)
SOURCE Centruiroides noxius (Mexican scorpion)
ORGANISM Centruiroides noxius
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
Buthida; Buthoidea; Buthidae; Centruiroides.
REFERENCE 1 (bases 1 to 192)
AUTHORS Zhu,S.
TITLE Alignment of beta-toxin nucleotide sequences
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 192)
AUTHORS Zhu,S.
TITLE Direct Submission
JOURNAL Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
Evenstraat, Leuven, Flanders 3000, Belgium
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DEFINITION Centruiroides noxius isolate Cni beta-toxin Gene, partial cds.
ACCESSION AF351298
VERSION AF351298.1 GI:38017454
KEYWORDS Centruiroides noxius (Mexican scorpion)
SOURCE Centruiroides noxius (Mexican scorpion)
ORGANISM Centruiroides noxius
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
Buthida; Buthoidea; Buthidae; Centruiroides.
REFERENCE 1 (bases 1 to 192)
AUTHORS Zhu,S.
TITLE Alignment of beta-toxin nucleotide sequences
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 192)
AUTHORS Zhu,S.
TITLE Direct Submission
JOURNAL Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
Evenstraat, Leuven, Flanders 3000, Belgium
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4 AACGATTATTGCAATAGGAATGCATGGAAGCACCAGGAGGTAGTTATGGCTATTTC 181
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[illegible]

TITLE Cloning and characterization of the cDNAs encoding Na⁺ channel-specific toxins 1 and 2 of the scorpion *Centruroides noxius* Hofmann
JOURNAL Toxicol 33 (9), 1161-1170 (1995)
PUBMED 8585086
REMARK GenBank staff at the National Library of Medicine created this entry [NCBI gibbsq 175934] from the original journal article.

FEATURES

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CDS

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DB 126 AAGGATTTGCAATAGGAATGCAGATGAACACCGAGGAGTAGTTACGGCTATTGC 185

QY 121 TACGGATTTGGTGCTATTGCGAAGGATTCGATAGTACACCGACTTGGCCCTTTCT 180

DB 186 TACGGATTTGGTGCTATTGCGAAGGATTCGATAGTACACCGACTTGGCCCTTTCT 245

QY 181 AATAAAGATGC 192

DB 246 AATAAAGATGC 257

RESULT 9

AY649868

LOCUS 258 bp mRNA linear INV 18-AUG-2004

DEFINITION Centruroides exilicauda Cex10 neurotoxin precursor (Cex10) mRNA,

partial cds.

ACCESSION AY649868

VERSION AY649868.1 GI:51234251

KEYWORDS Centruroides exilicauda

SOURCE Centruroides exilicauda

ORGANISM Centruroides exilicauda

REFERENCE Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;

Butthida; Butthoidea; Butthidae; Centruroides.

1 (bases 1 to 258)

Valdez-Cruz, N.A., Davila, S., Licea, A., Corona, M., Zamudio, F.Z.,

Garcia-Valdes, J., Boyer, L. and Possani, L.D.

Biochemical, genetic and physiological characterization of venom

components from two species of scorpions: Centruroides exilicauda

Wood and Centruroides sculpturatus Ewing

Biochimie (2004) In press

2 (bases 1 to 258)

Valdez-Cruz, N.A., Davila, S., Licea, A., Corona, M., Zamudio, F.Z.,

Garcia-Valdes, J., Boyer, L. and Possani, L.D.

Biochemical, genetic and physiological characterization of venom

components from two species of scorpions: Centruroides exilicauda

Wood and Centruroides sculpturatus Ewing

Biochimie (2004) In press

Submitted (10-JUN-2004) Molecular Medicine and Bioprocesses,

Institute of Biotechnology UNAM, Av. Universidad 2001, Cuernavaca,

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Best Local Similarity 87.0%; Pred. No. 4.2e-33;
Matches 167; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

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DB 1 AAGGACGGTTATCTGGTGACCAAGGGCTGCAAAAGAAATGCTATAAATTGGGAAA 60

QY 61 AACAATCTGCAATAGGAATGCATGGAAGACCGAGGAGTAAATTCAGGCTATTGTC 120

DB 61 AACAATCTGCAATAGGAATGCAGATGAACACCGAGGAGTAGTTACGGCTATTGTC 120

QY 121 TACGGATTTGGTGCTATTGCGAAGGATTCGATAGTACACCGACTTGGCCCTTTCT 180

DB 121 TATTTTTTGGTGCTATTGCGAAGGATTCGCGAAGTACACCGACTTGGCCCTTTCT 180

QY 181 AATAAAGATGC 192

DB 181 AATAAAGATGC 192

RESULT 10

AY649867

LOCUS 254 bp mRNA linear INV 18-AUG-2004

DEFINITION Centruroides exilicauda Cex9 neurotoxin precursor (Cex9) mRNA,

partial cds.

ACCESSION AY649867

VERSION AY649867.1 GI:51234249

KEYWORDS Centruroides exilicauda

SOURCE Centruroides exilicauda

ORGANISM Centruroides exilicauda

REFERENCE Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;

Butthida; Butthoidea; Butthidae; Centruroides.

1 (bases 1 to 254)

Valdez-Cruz, N.A., Davila, S., Licea, A., Corona, M., Zamudio, F.Z.,

Garcia-Valdes, J., Boyer, L. and Possani, L.D.

Biochemical, genetic and physiological characterization of venom

components from two species of scorpions: Centruroides exilicauda

Wood and Centruroides sculpturatus Ewing

Biochimie (2004) In press

2 (bases 1 to 254)

Valdez-Cruz, N.A., Davila, S., Licea, A., Corona, M., Zamudio, F.Z.,

Garcia-Valdes, J., Boyer, L. and Possani, L.D.

Biochemical, genetic and physiological characterization of venom

components from two species of scorpions: Centruroides exilicauda

Wood and Centruroides sculpturatus Ewing

Biochimie (2004) In press

Submitted (10-JUN-2004) Molecular Medicine and Bioprocesses,

Institute of Biotechnology UNAM, Av. Universidad 2001, Cuernavaca,

Mor 62250, Mexico

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Best Local Similarity 86.5%; Pred. No. 1.2e-32;
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Db 1 AAGGACGGTTATCTGGTGAGGTACGGCGTGCRAAAAGTCTTGCATATAAATTGGGAAA 60
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Qy 61 AACAAATCTGCAATAGGGAATGCACATGGAAGACACCGAGGAGTAATTACGGCTATTGC 120
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Db 61 AACAAATCTGCAATAGGGAATGCRAAATGAAGACACCGAGGAGTAGTTACGGCTATTGC 120
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Qy 121 TACGGATTGGGTGCTATTGGGAAGATTGCGGATAGTACACCGACTTGGCCCTTTCT 180
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Qy 181 AATAAAGATGC 192
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Db 181 AATAAATCATGC 192
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RESULT 11
AY351302
LOCUS      AY351302
DEFINITION Centruroides noxius isolate Cn5 beta-toxin gene, partial cds.
ACCESSION AY351302
VERSION    AY351302.1 GI:38017462
KEYWORDS
SOURCE     Centruroides noxius (Mexican scorpion)
ORGANISM   Centruroides noxius
            Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
            Buthida; Buthoidea; Buthidae; Centruroides.
REFERENCE  1 (bases 1 to 192)
            Zhu, S.
            Alignment of beta-toxin nucleotide sequences
            Unpublished
            2 (bases 1 to 192)
            Zhu, S.
            Direct Submission
            Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
            Evenstraat, Leuven, Flanders 3000, Belgium
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ORIGIN
Query Match      70.0%; Score 134.4; DB 2; Length 192;
Best Local Similarity 81.2%; Pred. No. 5.3e-28;
Matches 156; Conservative 0; Mismatches 36; Indels 0; Gaps 0;

mRNA
CDS

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Qy 121 TACGGATTGGGTGCTATTGGGAAGATTGCGGATAGTACACCGACTTGGCCCTTTCT 180
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Qy 181 AATAAAGATGC 192
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Db 181 AATAAATCATGC 192
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RESULT 12
AY351303
LOCUS      AY351303
DEFINITION Centruroides noxius isolate CnGIII beta-toxin gene, partial cds.
ACCESSION AY351303
VERSION    AY351303.1 GI:38017464
KEYWORDS
SOURCE     Centruroides noxius (Mexican scorpion)
ORGANISM   Centruroides noxius
            Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
            Buthida; Buthoidea; Buthidae; Centruroides.
REFERENCE  1 (bases 1 to 192)
            Zhu, S.
            Alignment of beta-toxin nucleotide sequences
            Unpublished
            2 (bases 1 to 192)
            Zhu, S.
            Direct Submission
            Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
            Evenstraat, Leuven, Flanders 3000, Belgium
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            CWCEGLPESTPTWPLPNKTC"

ORIGIN
Query Match      70.0%; Score 134.4; DB 2; Length 192;
Best Local Similarity 81.2%; Pred. No. 5.3e-28;
Matches 156; Conservative 0; Mismatches 36; Indels 0; Gaps 0;

mRNA
CDS

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Db 1 AAGGACGGTTATCTGGTAAACAGCACTTGGCTGCAAAATACCGTTCTTCTGGGAAA 60
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Qy 61 AACAAATCTGCAATAGGGAATGCACATGGAAGACACCGAGGAGTAATTACGGCTATTGC 120
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Qy 181 AATAAAGATGC 192
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Db 181 AATAAATCATGC 192
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RESULT 13
AY351301      192 bp      DNA      linear      INV 31-DEC-2003
LOCUS      Centruroides sculpturatus isolate CSeV2a beta-toxin gene, partial
DEFINITION      cds.
ACCESSION      AY351301
VERSION      AY351301.1 GI:38017460
KEYWORDS      Centruroides sculpturatus (bark scorpion)
SOURCE      Centruroides sculpturatus
ORGANISM      Centruroides sculpturatus
              Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
              Buthida; Buthoidea; Buthidae; Centruroides.
REFERENCE      1 (bases 1 to 192)
AUTHORS      Zhu,S.
TITLE      Alignment of beta-toxin nucleotide sequences
JOURNAL      Unpublished
REFERENCE      2 (bases 1 to 192)
AUTHORS      Zhu,S.
TITLE      Direct Submission
JOURNAL      Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
              Evenstraat, Leuven, Flanders 3000, Belgium
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Query Match      69.2%; Score 132.8; DB 2; Length 192;
Best Local Similarity 80.7%; Pred. No. 1.5e-27;
Matches 155; Conservative 0; Mismatches 37; Indels 0; Gaps 0;
QY      1      AAGACGGTTATCTGCTGGACAGACGGCTGCAAAATACACTTGTCTGGATATTGGGAGAA 60
DB      1      AAGAAGGTTATCTGTTAAACACGACGGCTGCAAAATACGTTGCTCTGAAATTGGGAGAA 60
QY      61      AACAAATCTGCAATAGGGAATGCACATGGAAGACCGAGGAGGTAATTACGGCTATTGC 120
DB      61      AAGCAAGGCTGCGATTAAGGAATGCAAGCGAAGAACCAAGGAGGTAGTTACGGCTATTGC 120
QY      121      TAGCGATTGGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB      121      TAGCGTTTCCATGCTGCTGGCGAAGGTTTTCGCCGAAAGTACACCGACTTATCTCTTCT 180
QY      181      AATAAAGATGC 192
DB      181      AATAAATCATGC 192
RESULT 14
AY351308      192 bp      DNA      linear      INV 31-DEC-2003
LOCUS      Centruroides noxius isolate Cn10 beta-toxin gene, partial cds.
DEFINITION      cds.
ACCESSION      AY351308
VERSION      AY351308.1 GI:38017474
KEYWORDS      Centruroides noxius (Mexican scorpion)
SOURCE      Centruroides noxius
ORGANISM      Centruroides noxius
              Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
              Buthida; Buthoidea; Buthidae; Centruroides.
REFERENCE      1 (bases 1 to 192)
AUTHORS      Zhu,S.
TITLE      Alignment of beta-toxin nucleotide sequences
JOURNAL      Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
              Evenstraat, Leuven, Flanders 3000, Belgium
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Query Match      68.3%; Score 131.2; DB 2; Length 192;
Best Local Similarity 80.2%; Pred. No. 4.4e-27;
Matches 154; Conservative 0; Mismatches 38; Indels 0; Gaps 0;
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DB      1      AAGGAAGGTTATCTGTTGAACACGACAGGCTGTAATACACTGCTTGATATTGGGAGAA 60
QY      61      AACAAATCTGCAATAGGGAATGCACATGGAAGACCGAGGAGGTAATTACGGCTATTGC 120
DB      61      AACAAAATCTGATATGGAATGCAAGCGAAGAACCAAGGAGGTAGTTACGGCTATTGC 120
QY      121      TAGCGATTGGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB      121      TACAAGCTTGCACTGCTGTCGGAAGGTTTTCGCCGAAAGTACACCGACTTATCCCATCTCT 180
QY      181      AATAAAGATGC 192
DB      181      GGTAAACATGC 192
RESULT 15
AY351307      192 bp      DNA      linear      INV 31-DEC-2003
LOCUS      Centruroides sculpturatus isolate CSeV1d beta-toxin gene, partial
DEFINITION      cds.
ACCESSION      AY351307
VERSION      AY351307.1 GI:38017472
KEYWORDS      Centruroides sculpturatus (bark scorpion)
SOURCE      Centruroides sculpturatus
ORGANISM      Centruroides sculpturatus
              Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
              Buthida; Buthoidea; Buthidae; Centruroides.
REFERENCE      1 (bases 1 to 192)
AUTHORS      Zhu,S.
TITLE      Alignment of beta-toxin nucleotide sequences
JOURNAL      Unpublished
REFERENCE      2 (bases 1 to 192)
AUTHORS      Zhu,S.
TITLE      Direct Submission
JOURNAL      Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
              Evenstraat, Leuven, Flanders 3000, Belgium
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Query Match      68.3%; Score 131.2; DB 2; Length 192;
Best Local Similarity 80.2%; Pred. No. 4.4e-27;
Matches 154; Conservative 0; Mismatches 38; Indels 0; Gaps 0;
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DB      1      AAGGAAGGTTATCTGTTGAACACGACAGGCTGTAATACACTGCTTGATATTGGGAGAA 60
QY      61      AACAAATCTGCAATAGGGAATGCACATGGAAGACCGAGGAGGTAATTACGGCTATTGC 120
DB      61      AACAAAATCTGATATGGAATGCAAGCGAAGAACCAAGGAGGTAGTTACGGCTATTGC 120
QY      121      TAGCGATTGGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB      121      TACAAGCTTGCACTGCTGTCGGAAGGTTTTCGCCGAAAGTACACCGACTTATCCCATCTCT 180
QY      181      AATAAAGATGC 192
DB      181      GGTAAACATGC 192
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JOURNAL      Unpublished
REFERENCE      2 (bases 1 to 192)
AUTHORS      Zhu,S.
TITLE      Direct Submission
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Query Match      68.3%; Score 131.2; DB 2; Length 192;
Best Local Similarity 80.2%; Pred. No. 4.4e-27;
Matches 154; Conservative 0; Mismatches 38; Indels 0; Gaps 0;
QY      1      AAGACGGTTATCTGCTGGACAGACGGCTGCAAAATACACTTGTCTGGATATTGGGAGAA 60
DB      1      AAGGAAGGTTATCTGTTGAACACGACAGGCTGTAATACACTGCTTGATATTGGGAGAA 60
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DB      61      AACAAAATCTGATATGGAATGCAAGCGAAGAACCAAGGAGGTAGTTACGGCTATTGC 120
QY      121      TAGCGATTGGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB      121      TACAAGCTTGCACTGCTGTCGGAAGGTTTTCGCCGAAAGTACACCGACTTATCCCATCTCT 180
QY      181      AATAAAGATGC 192
DB      181      GGTAAACATGC 192
RESULT 15
AY351307      192 bp      DNA      linear      INV 31-DEC-2003
LOCUS      Centruroides sculpturatus isolate CSeV1d beta-toxin gene, partial
DEFINITION      cds.
ACCESSION      AY351307
VERSION      AY351307.1 GI:38017472
KEYWORDS      Centruroides sculpturatus (bark scorpion)
SOURCE      Centruroides sculpturatus
ORGANISM      Centruroides sculpturatus
              Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
              Buthida; Buthoidea; Buthidae; Centruroides.
REFERENCE      1 (bases 1 to 192)
AUTHORS      Zhu,S.
TITLE      Alignment of beta-toxin nucleotide sequences
JOURNAL      Unpublished
REFERENCE      2 (bases 1 to 192)
AUTHORS      Zhu,S.
TITLE      Direct Submission
JOURNAL      Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
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Query Match      68.3%; Score 131.2; DB 2; Length 192;
Best Local Similarity 80.2%; Pred. No. 4.4e-27;
Matches 154; Conservative 0; Mismatches 38; Indels 0; Gaps 0;
QY      1      AAGACGGTTATCTGCTGGACAGACGGCTGCAAAATACACTTGTCTGGATATTGGGAGAA 60
DB      1      AAGGAAGGTTATCTGTTGAACACGACAGGCTGTAATACACTGCTTGATATTGGGAGAA 60
QY      61      AACAAATCTGCAATAGGGAATGCACATGGAAGACCGAGGAGGTAATTACGGCTATTGC 120
DB      61      AACAAAATCTGATATGGAATGCAAGCGAAGAACCAAGGAGGTAGTTACGGCTATTGC 120
QY      121      TAGCGATTGGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB      121      TACAAGCTTGCACTGCTGTCGGAAGGTTTTCGCCGAAAGTACACCGACTTATCCCATCTCT 180
QY      181      AATAAAGATGC 192
DB      181      GGTAAACATGC 192
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JOURNAL      Unpublished
REFERENCE      2 (bases 1 to 192)
AUTHORS      Zhu,S.
TITLE      Direct Submission
JOURNAL      Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
              Evenstraat, Leuven, Flanders 3000, Belgium
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Query Match      68.3%; Score 131.2; DB 2; Length 192;
Best Local Similarity 80.2%; Pred. No. 4.4e-27;
Matches 154; Conservative 0; Mismatches 38; Indels 0; Gaps 0;
QY      1      AAGACGGTTATCTGCTGGACAGACGGCTGCAAAATACACTTGTCTGGATATTGGGAGAA 60
DB      1      AAGGAAGGTTATCTGTTGAACACGACAGGCTGTAATACACTGCTTGATATTGGGAGAA 60
QY      61      AACAAATCTGCAATAGGGAATGCACATGGAAGACCGAGGAGGTAATTACGGCTATTGC 120
DB      61      AACAAAATCTGATATGGAATGCAAGCGAAGAACCAAGGAGGTAGTTACGGCTATTGC 120
QY      121      TAGCGATTGGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB      121      TACAAGCTTGCACTGCTGTCGGAAGGTTTTCGCCGAAAGTACACCGACTTATCCCATCTCT 180
QY      181      AATAAAGATGC 192
DB      181      GGTAAACATGC 192
RESULT 15
AY351307      192 bp      DNA      linear      INV 31-DEC-2003
LOCUS      Centruroides sculpturatus isolate CSeV1d beta-toxin gene, partial
DEFINITION      cds.
ACCESSION      AY351307
VERSION      AY351307.1 GI:38017472
KEYWORDS      Centruroides sculpturatus (bark scorpion)
SOURCE      Centruroides sculpturatus
ORGANISM      Centruroides sculpturatus
              Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones;
              Buthida; Buthoidea; Buthidae; Centruroides.
REFERENCE      1 (bases 1 to 192)
AUTHORS      Zhu,S.
TITLE      Alignment of beta-toxin nucleotide sequences
JOURNAL      Unpublished
REFERENCE      2 (bases 1 to 192)
AUTHORS      Zhu,S.
TITLE      Direct Submission
JOURNAL      Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van
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Query Match      68.3%; Score 131.2; DB 2; Length 192;
Best Local Similarity 80.2%; Pred. No. 4.4e-27;
Matches 154; Conservative 0; Mismatches 38; Indels 0; Gaps 0;
QY      1      AAGACGGTTATCTGCTGGACAGACGGCTGCAAAATACACTTGTCTGGATATTGGGAGAA 60
DB      1      AAGGAAGGTTATCTGTTGAACACGACAGGCTGTAATACACTGCTTGATATTGGGAGAA 60
QY      61      AACAAATCTGCAATAGGGAATGCACATGGAAGACCGAGGAGGTAATTACGGCTATTGC 120
DB      61      AACAAAATCTGATATGGAATGCAAGCGAAGAACCAAGGAGGTAGTTACGGCTATTGC 120
QY      121      TAGCGATTGGGTGCTATTGCGAAGGATTGTCGATAGTACACCGACTTGGCCCTTTCT 180
DB      121      TACAAGCTTGCACTGCTGTCGGAAGGTTTTCGCCGAAAGTACACCGACTTATCCCATCTCT 180
QY      181      AATAAAGATGC 192
DB      181      GGTAAACATGC 192
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ORIGIN
Query Match      66.7%; Score 128; DB 2; Length 192;
Best Local Similarity 79.2%; Pred. No. 3.7e-26;
Matches 152; Conservative 0; Mismatches 40; Indels 0; Gaps 0;

Qy 1 AAAGACGGTTATCTGGGACAGACGGGCTGCCAAATACACTTGTCTGGATATTGGGAGAA 60
Db 1 AAAGAGGTTATCTGGTAAACAGCACGGGCTGCCAAATACGATTGCTTTTGGTTGGGAAA 60

Qy 61 AACAAATACTGCAATAGGGAATGCACATGGAGACCCGAGGAGGTAATTACGGCTATTGC 120
Db 61 AACGNACACTGGGATTGGATTCGAATGCRAAGCGAAGAACCAAGGAGGTAGTTACGGGTATTGC 120

Qy 121 TACGGATTGGGTGCTATTGGGAAGGATTGTCGGATAGTACACCGACTTGGCCCTTTCT 180
Db 121 TACGCTTTGCGCATGCTGTGGCGAAGGTTTGCCCGAAAGTACACCGACTTATCCCTTCCT 180

Qy 181 AATAAAGATGC 192
Db 181 AATAAATCATGC 192
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Search completed: January 21, 2006, 22:05:18
Job time : 1731 secs

November 2005

Published_Applications Nucleic Acid and Published_Applications Amino Acid database searches now generate two sets of results each. The Published_Applications databases have been split into two parts to reduce the amount of time required for their daily updates. This results in more machine time being available for processing searches.

Newly published applications will appear in the Published_Applications_New databases; older published applications make up the Published_Applications_Main databases.

Searches run against Nucleic Acid Published_Applications produce two sets of results, with the extensions **.rnpbm** (Published_Applications_NA_Main) and **.rnpbn** (Published_Applications_NA_New). Searches run against Amino Acid Published_Applications produce two sets of results, with the extensions **.rapbm** (Published_Applications_AA_Main) and **.rapbn** (Published_Applications_AA_New).

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